

**THE EFFECTS OF PSYCHOLOGICAL CAPITAL AND JOB
SATISFACTION ON WORK ENGAGEMENT OF SUPPORT STAFF AT A
HOLDINGS ESTABLISHMENT
(Meridian Holdings)**

by

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DEDICATION

This thesis is dedicated to my loving family, for the love and tireless understanding, support, and encouragement they have provided me throughout my studies. I would like to give specific acknowledgement to my nonna, Grete Bighi, for affording me the opportunity to further my education and for always being a pillar of hope, support and inspiration throughout all spheres of my life. It is my hope that, through my hard work and dedication, I can make them all proud.

DECLARATION

I declare that this dissertation, hereby submitted by me, Kelly-Anne Ramsden, for an M.Com degree at Stellenbosch University is my own independent work and has not been previously submitted by me at any other university, faculty or department. Furthermore, I cede copyright of this dissertation in favour of Stellenbosch University.

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ABSTRACT

Psychological Capital and job satisfaction have shown to influence certain behavioural and attitudinal outcomes of employees in the workplace and have consequently been identified to have a large influence on components such as work engagement. In short, work engagement refers to how involved employees are within their working environment in terms of certain levels of energy, interaction and commitment. Positive work engagement is extremely important for the well-being and productivity of employees as well as for organisational effectiveness. With Positive work engagement, employees can strongly identify with the work that they do. When it comes to a South African setting, positive behaviour is valuable when pushing for organisational effectiveness where emphasis is strongly placed on the development of equality, cross cultural relationships, skill and competency. We find ourselves in a societal shift that is pushing us to face prevalent social challenges such as discrimination, racism, sexism and poverty.

As a result, the purpose of this paper was to address the influence of certain components on work engagement. Ultimately, two variables, namely psychological capital and job satisfaction, were chosen to be tested amongst support staff at a Holdings Establishment (Meridian Holdings). This paper further reported on how gender played a role in employees experience of work engagement and why these gender effects were evident. Data was collected by means of an on-line self-administered composite questionnaire. A total of 118 permanent support staff completed the questionnaire. The questionnaire comprised of scales measuring work engagement (Utrecht Work Engagement Scale), job satisfaction (Job Description Index), psychological capital (Psychological Capital Questionnaire) and certain demographic variables.

The postulated effect studied was empirically tested using various statistical methods. Reliability analysis was done on all the measurement scales. The content of the measured constructs were investigated by means of confirmatory factor analyses. Subsequently, a Structural Equation Modelling (SEM) was used to determine the extent to which the conceptual model fitted the data obtained from the sample and to test the relationships between the constructs. Contrary to literature, the results indicated a significant negative relationship between job satisfaction and work engagement, meaning that as score in one variable increased scores in the other decreased; and no relationship between psychological capital and work engagement

was found. This potentially indicates that these variables alone are not necessarily the only influencing factor of levels of work engagement.

Even though the results of this study were contrary to what previous literature provided, the study contributes to existing literature on work engagement, psychological capital and job satisfaction by providing insights into the nature of these constructs and their effects on one another within specific contexts. Furthermore, this paper identified practical implications to be considered within organisations in order to enhance and encourage positive work engagement. The limitations and recommendations present additional insights and possibilities that could be explored through future research studies. These results should empower Human Resources and other relevant departments within the Holdings' team to formulate and streamline a strategy specifically focused on the well-being and engagement of all their support staff, based on the variables that significantly contribute to work engagement.

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CHAPTER 1

INTRODUCTION, RESEARCH OBJECTIVES AND OVERVIEW OF THE STUDY

1.1 Introduction

In this day and age, organisations are dealing with complex performance drivers such as globalisation, strategy, innovation planning and the need to build productive, yet effective, processes for growth, so that organisational effectiveness can be increased (Soni & Rastogi, 2017). Human capital is a key resource in handling these performance demands and can be seen as a tremendous competitive advantage (Luthans, Avey, Avolio, & Peterson, 2010). Using human capital as optimally as possible is advantageous because it is difficult for opponents to reproduce this component (Barney, 1991).

The challenge faced, however, is that organisations operate in an ever changing and turbulent external environment, where a diverse workforce is constantly affected by globalisation and changing technology which can be very unpredictable (Kuratko, Morris, & Covin, 2011; Takawira, 2012). Thus, it is important to recognise that the ultimate reason to accomplish organisational effectiveness is to boost employees' task proficiency, responsibility, and to support intrinsic motivation for optimal performance (Soni & Rastogi, 2017). This is why the focus has been put on increasing and sustaining job satisfaction, so that positive organisational ideas through Psychological Capital, to better work engagement, can be taught and modelled (Soni & Rastogi, 2017). Psychological Capital shows one's self-reliance when dealing with difficulties (self-efficacy), positive expectations for one's future success (optimism), one's ability to be full of determination (hope), and one's ability to achieve things in spite of obstacles (resilience). The construct of PsyCap will be explained and detailed in the following chapters.

Work, in and of itself, plays a central role in an individual's identity. The importance of job satisfaction within one's working role is emphasised by the amount of time and effort spent on workplace roles (Judge & Klinger, 2007). Beyond being central to an individual's identity, job satisfaction is important to consider in order to improve an individual's work engagement and overall organisational effectiveness (Judge & Klinger, 2007).

Locke (as cited in Tekell, 2008, p.2) defines job satisfaction as “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences”. Tekell (2008) summarises the concept, explaining that employees are satisfied or dissatisfied based on feelings generated by their experiences at work. Spector (1997) supports this by defining job satisfaction as how individuals feel about their work, where these feelings could be either good or bad. The overall effect of job satisfaction on the organisation has become a general modern concern (Maniram, 2012) because of the impact it has on work engagement (Spector, 1996). It is important to remember that the outcomes of job dissatisfaction on employee engagement could lead to low occupational fulfilment, increased job stress, increased lack of productivity and higher employee turnover (Bako, n.d.).

Johnson (2012) identified different factors influencing levels of job satisfaction, which have received considerable attention in recent years. Buitendach and De Witte (as cited in Mafini & Dlodlo, 2014) identified intrinsic and extrinsic factors of job satisfaction. Intrinsic factors are those that fulfil the self-realisation of individuals. Extrinsic factors include factors outside of the individual, which are controlled and influenced by others. Furthermore, organisational-level characteristics such as organisational size, supervisor feedback, perceived organisational support, and employee cohesiveness, are also inclined to affect job satisfaction (Johnson, 2012).

This study will further focus on the intrinsic motivational value of PsyCap. PsyCap has been known to nurture intrinsic motivation, which is an important component for developing work engagement (Sweetman & Luthans, 2010). It is expected of employees to show initiative, take a proactive approach, be committed and take responsibility for the production of high quality work, and thus be engaged in their work (Bakker, Schaufeli, Leiter, & Taris, 2008). Nationally and internationally, it is evident that the working environment demands a great deal more from employees (De Waal & Pienaar, 2013). To boost engagement, various personal (internal) employee resources should be developed and nurtured, which are included in the dimensions of PsyCap, namely optimism, hope, self-efficacy and resilience. Indeed, research has proven that PsyCap effectively aids work engagement (Bakker & Demerouti, 2008; De Waal & Pienaar, 2013).

Employee engagement specifically refers to the physical, cognitive and affective effort and energy an individual puts into their work. According to Chaurasia and Shukla

(2014) it allows for a more personal effectiveness in individual membership, team membership and organisational membership. The concept of engagement is further seen to be a derivative of the positive psychology perspective, as it focuses on human strength and optimal performance rather than weaknesses (De Waal & Pienaar, 2013). Engagement is therefore a positive work-related outcome, where skilled, competent and engaged employees are seen as being fundamental to producing high quality goods and services (Bakker et al., 2008; Tshilongamulenzhe & Takawira, 2015).

Indeed, work engagement can have long-term benefits for organisations, especially if it is motivated by job characteristics such as providing skill variety, task identity, task significance, and autonomy, leading to higher profitability and success (Geldenhuys, Taba & Venter, 2014). On an individual level, employees that are more productive are less likely to leave an organisation, therefore also improving profitability and support for the organisation (De Waal & Pienaar, 2013).

Engaged employees tend to view their work as being challenging instead of being stressful (Bakker et al., 2008). This does not however take away from the fact that having lower levels of work engagement negatively impacts on the organisation. Geldenhuys et al. (2014) states that employees want to feel fulfilled within their work roles, and if employees begin to question the nature and meaning of what they are doing, they will become less engaged within their work. Olivier and Rothmann (2007) add that disengaged employees are disconnected from their jobs and hide from their personal identities, thoughts and feelings. Employees generally do not feel fulfilled within their work roles when their work is - or is perceived as being - monotonous, which can lead to lower levels of work engagement (Geldenhuys et al., 2014).

Repetitive, monotonous work comes in different forms ranging from highly repetitive and forceful work to less repetitive and less forceful work, such as secretarial work for instance (Faber, Hansen, & Christensen, 2006). Support staff, who contribute largely within their supportive roles to the effective functioning of institutions, frequently find themselves dealing with monotonous work (Field & Buitendach, 2011). Dealing with these supportive duties, which are undeniably necessary for the effective functioning of an institute, can be very demanding and require a great deal of time and energy, which could lead to lower levels of engagement (Field & Buitendach, 2011). It is therefore vital to ensure that support staff experience an optimal level of psychological well-being at work as stated by Field and Buitendach (2011). With increased organisational

support, support staff will be more enthusiastic and engaged in their work, regardless of the quantity and the quality of the job demand (Rothmann & Jordaan, 2006).

If an employee experiences lower levels of engagement it can be detrimental, not only to the individual, but to the organisation's effectiveness as well (Haley, Mostert, & Els, 2013). Lower levels of engagement are characterised by an experience of exhaustion, cynicism and reduced professional efficacy (Bezuidenhout & Cilliers, 2010), and engagement will be affected if employee well-being is not maintained (Bonner, 2016). Bonner (2016) suggests that when an employee with positive PsyCap experiences job demands, they tend to motivate employees, which manifests in effective work engagement, whereas the opposite is true for an employee experiencing negative PsyCap. Concurrently, Sweetman and Luthans (2010) support this by adding that PsyCap fosters an intrinsic motivation which is key in developing work engagement.

PsyCap is a construct of positive psychology, but is more specifically a core construct of positive organisational behaviour (POB), which is a form of positive psychology applied in the workplace (Simons & Buitendach, 2013). Positive psychology emphasises strengths, virtues, excellence, happiness, flourishing, resilience, as well as optimal functioning, and shifts focus away from weaknesses and what is "wrong" with individuals (Luthans, Norman, Avolio, & Avey, 2008; Donaldson & Ko, 2010). Therefore, PsyCap too highlights the intrinsic strengths of an individual (Simons & Buitendach, 2013). Organisations need employees to be psychologically connected to their work, and thus dedicated to better work performance (Soni, & Rastogi, 2017). This type of attitude, coupled with the positive dimensional factors of PsyCap (efficacy, hope, resilience and optimism) can result in more effective functioning for the organisation and the individual (Luthans & Youssef, 2004).

On an individual level, employees find themselves developing a positive psychological state characterised by having confidence, making positive attributions in work and life, persevering toward goals and being resilient towards difficulties or hardships (Luthans, Youssef, & Avolio, 2007). Conversely, organisations which focus on the development of PsyCap, are able to gain a competitive advantage and form an eager workforce that is needed for effective work engagement and organisational success (Gooty, Gavin, Johnson, Frazer, & Snow, 2009).

Various studies have also focused on the difference in work engagement among men and women. Bezuidenhout and Cilliers (2010) argue that there are significant differences in men and women with regards to work engagement levels. Females exhibit higher levels of work engagement with regards to dedication and absorption, though it seems men rate themselves more positively than women do (Sturm, Taylor, Atwater, & Braddy, 2014). Men however tend to score significantly higher on vigour than women do (Mache et al., 2014). Contrary to this, Siu et al. (2010) found no statistical difference regarding work engagement in terms of gender.

Consequently, it was apparent that this script needed to focus on the effects of gender on work engagement due to the situational constraints that played a role in men and women's varying ability to stay engaged and recovery quickly in a working environment. Research has aligned to show that men have a lower recovery lever impacting work engagement. That being said, because women are seen to hold a greater workload, based on their responsibilities exceeding the work setting, it is expected that women have less time and opportunity to therefore recover and/or stay engaged. Nonetheless, men seem to spend more time on work-related activities after working hours, which implies they do need more time to recover or keep engaged before redundancy sets in, but unfortunately, their activities do not support the process. Further investigation is however needed (Banihani, Lewis, & Syed, 2013; Frankenhaeuser, 1981; Meijman, Mulder, & Van Dormolen, 1992; Sonnentag, 2003).

Overall, it is evident that the practice of POB can positively affect employee and organisational effectiveness, which is invaluable in a South African organisational context where emphasis is placed on the development of equality, cross cultural relationships, skill and competency (Luthans, van Wyk, & Walumba, 2004). It is therefore vital that South African organisations, facing social challenges such as discrimination, racism, sexism and poverty, focus on positive psychology and POB as a possible approach to develop and grow, focusing on positive institutional and social variables that promote employee growth and performance as emphasised by Luthans, Youssef, and Avolio's (2007).

Positive psychology has allowed for focus to be placed on concepts such as work engagement, where the aim is achieving a satisfactory level of overall employee well-being and job satisfaction. Support staff are comprised of human capital, and consequently there is a need to ensure that high levels of work engagement are

experienced. Thus, it is important that a positive mind-set be adopted in organisations to ensure that psychological well-being can be met. Recent focus has shifted to understanding how some employees deal with stressful situations and effectively preserve the four-dimensional factors of PsyCap (resilience, hope, optimism and self-efficacy), whilst others do not. Consequently, the researcher will focus on the effects of PsyCap and job satisfaction on work engagement amongst support staff at a holdings establishment. It is also unclear whether or not gender differences unequivocally exist in terms of work engagement, and consequently further research will have to be obtained to clarify this uncertainty.

1.2 Research Question and Objectives

Based on specific research initiating questions, the proposed study will focus on precise research objectives. The identified research questions and objectives follows hereafter.

Research Questions:

Primary research question: Does psychological capital and job satisfaction have an effect on work engagement amongst support staff at a holdings establishment in SA?

Secondary research question: Do differences exist in work engagement amongst support staff at a holding's establishment in SA with regards to gender?

1.3 Outline of Chapters Going Forward

The main variable in the study, namely Work Engagement, Psychological Capital and Job Satisfaction will be explored in Chapter 2 together with the interrelationship identified amongst the independent and dependent variables. This chapter will include the nature and definitions of these variables, as well as theories, models and determinants thereof. All necessary information on the research methodology used in this study will be discussed in Chapter 3. This will include the selection of participants, gathering of data, the measuring instruments used, as well as the statistical analysis used. Following this, the results will be reported and interpreted in Chapter 4. Lastly,

Chapter 5 will identify the significance and implications of the findings identified in the previous chapters. A general conclusion regarding the previous chapters, as well as the limitations of this study, and recommendations for future research on this specific topic, will be provided.

CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

Based on the research initiating questions and specified objectives outlined in the first chapter, the aim of this section will be to present a theoretical background to this study. This will include a thorough analysis of the selected variables under investigation. The focus will be namely on the nature and definition of the chosen variables, dimensions linked to these variables, as well as theories and models constructed from past studies which can be used as a theoretical point of departure for this study. Lastly, an interrelationship amongst the independent and dependent variables will be recognized throughout the literature to ensure a link can be identified.

2.2. Work Engagement

Work engagement shows one's attachment to the working environment in terms of certain levels of energy, involvement, and commitment (Hallberg & Schaufeli, 2006). Thus, positive work engagement is important for organisational effectiveness, as it is a positive work-related state of well-being which allows employees to strongly identify with their work (Bakker et al., 2008). Historically, research on engagement has been beset with inconsistent construct definitions leading to confusion as to whether engagement is conceptually and empirically different from other constructs (Christian, Garza, & Slaughter, 2011). This has left researchers concerned about the incremental value of engagement.

Thus, the intent is to resolve any confusion about inconsistency by integrating available evident within this literature explaining commonalities amongst the conceptualization of engagement, investigating engagement as a unique construct, and lastly identifying the constructs of Psychological Capital and Job Satisfaction in association with engagement (Christian et al., 2011).

This will be done by identifying the nature and varying definitions of work engagement, as well as theories, models, determinants and differences identified in work engagement levels, specifically between men and woman. Lastly, this study will examine what the measures of work engagement consist of.

2.2.1. Nature and Definition of Work Engagement

Many economic, business and social changes have occurred over time in the working environment (Jacobs, Renard, & Snelgar, 2014). Money benefits and varying extrinsic rewards have typically been used to attract, attain, motivate and engage employees, and have been viewed as the most preferred reward system in South Africa as well (Allen & Helms, 2011; Snelgar, Renard, & Venter, 2013). In addition to these extrinsic rewards however, it is now evident that intangible intrinsic rewards are just as essential to job performance, and organisations have started to re-evaluate traditional reward systems (Taylor, 2008). Intangible intrinsic rewards include factors such as self-direction, creativity, and the opportunity to use one's skill and ability to be effective and motivated in the work performed (Mottaz, 1985). Traditionally, reward systems have always been regarded as beneficial because they attract, retain, motivate and engage employees who believe the rewards are the solution to employee well-being (Jacobs et al., 2014).

Currently however, knowledge and service-based industries are receiving greater attention (Armstrong & Brown, 2009). Thus, organisations now require higher levels of employee innovation, knowledge and creativity (Markova & Ford, 2011), which is strongly associated with work engagement (Field & Buitendach, 2011). Therefore, enthusiastic, dedicated employees who strongly identify with their work are required, as they are seen to be highly engaged (De Braine & Roodt, 2010). Engagement is held to be a psychological state of involvement attached to one's work role which leads to positive work outcomes such as organisational commitment (Geldenhuys et al., 2014).

Many different views have developed regarding the concept of work engagement; however, operational definitions are not always consistent (Christian et al., 2011). Most research agrees that more engaged employees have higher levels of energy and identify more strongly with their work (Bakker et al., 2008; Rothmann, Jorgensen, & Hill, 2011; Geldenhuys et al., 2014; Jacobs et al., 2014) and a vast majority of research drew on Kahn's conceptual foundation of work engagement (Christian et al., 2011). Kahn's (1990, p.700) formal definition states that work engagement is a "concept that represents the active allocation of personal resources toward the tasks associated with a work role". The most sighted definition was however developed by Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002, p. 72), who define work

engagement as a “positive fulfilling, work-related state of mind, most commonly characterised by vigour, dedication and absorption”.

This study focussed on work engagement as defined by Schaufeli et al. (2002, p.72), which states that work engagement is a positive work-related state of mind defined by three dimensions, namely, vigour, dedication and absorption. Vigour refers to high energy levels and mental resiliency whilst working, while dedication means being deeply involved and developing a sense of achievement in work. Absorption encompasses being fully absorbed in the work done so that time passes quickly (Field & Buitendach, 2011). These components will be explored in more detail under Section 2.2.2.

Furthermore, work engagement could be influenced by psychological capital (PsyCap), a construct that forms part of this study. Indeed, a great deal of empirical evidence suggests that PsyCap has an effect on work engagement (Sweetman & Luthans, 2010; Soni & Rastogi, 2017). In terms of the psychological perspective, the study of work engagement has shifted from a focus on weakness to a focus on strength and happiness (Rothmann, 2003), and entails individuals’ pursuing fulfilment by applying their strengths effectively (Rothmann, 2003). Work engagement is fundamentally a motivational concept that represents an active allocation of personal resources towards tasks within the work role (Christian et al., 2011). Thus, according to Schaufeli and Bakker (2004) a positive attitude towards work can be positively related to work engagement. Moreover, work engagement also refers to a psychological connection as well, rather than just an attitudinal connection (Christian et al., 2011). Also, certain characteristics that shape our work, such as the environment worked in, the interactions with co-workers and the support and deserved recognition received from management are all components effecting job satisfaction, and ultimately influencing levels of engagement (Johnson, 2012). Individuals who are engaged experience a connection with their work on multiple levels (Christian et al., 2011).

Empirical evidence suggests that variations do exist in terms of differences between men and woman regarding work engagement (Munir et al., 2015). Munir et al. (2015) report higher scores from men on the dimensions of vigour and dedication with regards to work engagement based on occupational sitting time, thus suggesting that men have a higher sense of work engagement than do women. In contrast however, De Villiers

(2009) reports higher scores from woman on the dimensions of dedication and absorption. Given the contrary information available, work engagement in men and woman will be investigated more thoroughly in a following section.

Within the South African context, institutions play an important role in helping with the ongoing transformation within the country (Field & Buitendach, 2011). Thus, it is important that institutions work on developing positive work engagement for their staff, as they are seen as forming part of the vital supportive role of the institution (Field & Buitendach, 2011). Although support staff do contribute largely to the functioning of the institution, most studies do overlook them (Barkhuizen & Rothmann, 2006). Therefore, further investigation is consequently needed.

2.2.2. Dimensions of Work Engagement

As discussed in section 2.2.1, work engagement consists of three dimensions which correlate with the definition upon which this study focused, and which constitute the direct opposite of the three burnout dimensions, specifically, exhaustion, cynicism and reduced professional efficacy (Bezuidenhout & Cilliers, 2010). These dimensions include absorption, dedication and vigour (Jacobs et al., 2014).

Vigour is comprised of mental resilience, a persistent feeling of positivity, energy and enthusiasm (Bakker et al., 2008). It determines the amount of time an employee wants to spend on work-related tasks which they find stimulating (Bakker, Tims, & Derks, 2012). Vigour further suggests an employee's readiness to put all their effort into their work by ensuring that they do not become easily fatigued, and develop the ability to stay determined even when faced with challenges or failure (Geldenhuys et al., 2014).

It is also important to note that vigour allows one to deal with professional problems in a determined manner, where the individual shows a great deal of commitment (Setti & Argentero, 2014). Individuals have higher levels of vigour after they have been exposed to mindfulness programmes (Malinowski & Lim, 2015). Mindfulness is defined as a "natural human capacity, which involves observing, participating and accepting each of life's moments from a state of equilibrium or loving kindness" (Albrecht, 2014, p.21). The second dimension, dedication, is comprised of pride, persistence and being actively involved in one's work (Bakker et al., 2008). which results in an employee's feeling satisfied and passionate about their work (Setti & Argentero, 2014).

Dedication includes the emotional component of work engagement that is utilised within a working situation (Geldenhuys et al., 2014), aptly described by Schaufeli et al. (2002) as putting one's heart into the job. The last dimension, absorption, includes an individual's psychological involvement within their work, combined with a sense of meaning (Schaufeli et al., 2002).

Moreover, absorption refers to how much concentration an individual puts into their professional activities, and how quickly time passes without their noticing it (Bonner, 2016). Geldenhuys et al. (2014) emphasises this by stating that absorption takes place when individuals are immersed deeply in their work, so much so, that time is not a factor. It is important, however, to note that individuals with high absorption could potentially find it difficult to detach themselves from work. Work engagement should not however be confused with workaholism (Bakker et al., 2008).

Workaholics are obsessed with their work and can be identified as compulsive workers due to the fact that their lives become consumed with what they may consider compelling work responsibilities. Engaged employees however, work hard (show vigour), are involved (show dedication) and find meaning in their work (are absorbed) (Bakker et al., 2008).

2.2.3. Theories of Work Engagement

At various points in empirical research, scientific disciplines need to be examined to determine whether progress is being made. Established theories allow particular knowledge on a specific discipline to be used and analysed, and for feedback to be generated to readjust goals and approaches that were identified in a study (Miner, 2003). Therefore, drawing upon the knowledge of past successes and failures of certain disciplines, necessary changes can be made for future analysis (Miner, 2003). Several different theories of work engagement exist (Albrecht, 2013). This study will focus on two distinct theories, namely, the Social Exchange Theory and the Conservation of Resources Theory.

2.2.3.1. Social Exchange Theory

The Social Exchange Theory (SET) has been viewed as one of the most powerful conceptual examples used for understanding workplace behaviour (Cropanzano & Mitchell, 2005). The SET has proven to be a major theoretical construct, bridging disciplines such as Anthropology (Firth, 1967), Social Psychology (Gouldner, 1960) and Sociology (Blau, 1964). The SET stipulates that one party treats another auspiciously, and consequently the receiving party of a gesture will feel obliged to return the favour (Albrecht, 2013). Similarly, other theories agree that the SET involves a sequence of interactions that breed obligation (Cropanzano & Mitchell, 2005). These actions are usually seen as interdependent, meaning they are dependent on the actions of others (Blau, 1964; Saks, 2006). In a workplace context, this means that as an interdependent relationship develops between an employee and an employer, they will eventually trust each other and the relationship more, resulting in mutual commitment (Cropanzano & Mitchell, 2005).

The possibility of creating these high-quality relationships will be dependent however, on the circumstances present (Cropanzano & Mitchell, 2005). One of the most prominent tenants of the SET is that it takes time before relationships evolve into loyal, trusting and mutual commitments (Saks, 2006). Parties must therefore tolerate certain “rules” of exchange (Cropanzano & Mitchell, 2005). Rules of exchange refer to a “normative definition of the situation that forms among or is adopted by the participants in an exchange relation” (Emerson, 1976, p. 351). These rules and norms are therefore guidelines for how an effective exchange process will work, which will in effect impact upon engagement (Saks, 2006).

2.2.3.2. Conservation of Resources Theory

The basic belief of the Conservation of Resources Theory (COR) is that individuals primarily strive to preserve and protect certain resources they currently possess and value (Hobfoll, Freedy, Lane, & Geller, 1990; Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). Social resources, job resources, personal resources and work engagement are all mutually related to the COR, as they all form the basis of the theory (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009).

Social resources provide just as much support as internal resources, including high

self-esteem and a sense of mastery. Whilst examining theories that have been suggested by other researchers, it is apparent that social support is considered crucial for an individual's well-being. These social resources, together with personal (internal) resources, can relate to a sense of identity for an individual and can therefore assist in employee job satisfaction and work engagement (Hobfoll, Freedy, Lane, & Geller, 1990).

2.2.4. Models of Work Engagement

Several models have been identified and proposed by researchers (Bindl & Parker, 2011; Parker & Griffin, 2011). The model most used for work engagement is Bakker and Demerouti's (200) Job Demands-resources (JD-R) Model. Within this study focus will also be placed on the Affective Shift Model developed by Bledow, Schmitt, Frese and Kühnel (2011). Both models are discussed and detailed in the following section.

2.2.4.1. Job Demands-resources Model

Numerous studies have shown how certain job characteristics can influence employee well-being by bringing about job strain, burnout, and lower levels of work engagement (Bakker & Demerouti, 2007). These job demands can lead to serious problems such as sleeping difficulties, exhaustion and impaired health in general (Halbesleben & Buckley, 2004). These symptoms are caused by physical, psychological, social or organisational strains that require cognitive and emotional effort or skill, which if not gained or maintained, can cause permanent physiological or psychological turmoil (Bakker & Demerouti, 2007). According to Bakker and Demerouti (2007) some job characteristics that could lead to these conditions include high work pressures, unfavourable physical environments and emotionally demanding interactions with clients.

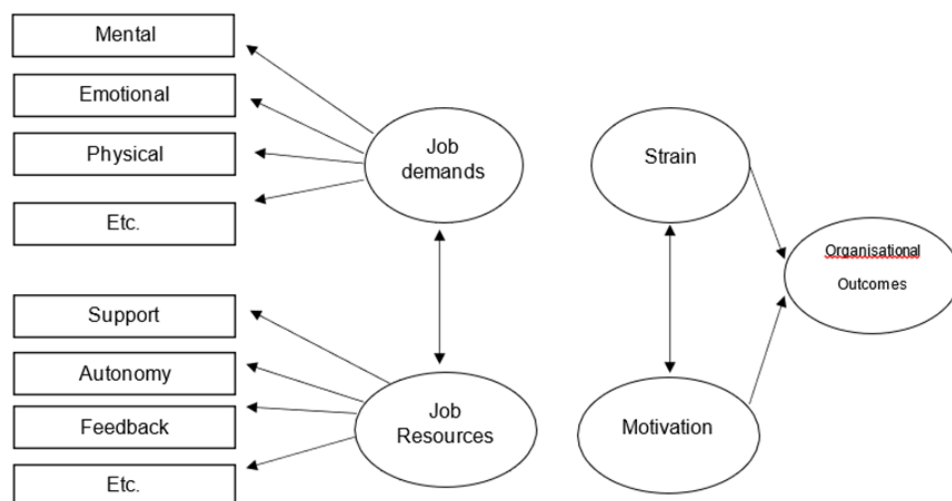


Figure 1. Job Demands-resources Model

Source. Bakker, A.B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), p.313

Job resources, on the other hand, such as social support, performance feedback and autonomy may elicit a motivational response that leads to increased work engagement, a willingness to learn and organisational commitment (Salanova, Agut, & Peiro, 2005). In essence, the Job Demand-Resources (JD-R) Model posits that if there are more demands than resources available, the employee will not be able to cope (Bakker & Demerouti, 2007). Furthermore, it is evident as identified earlier, that work engagement has been positively linked with job resources. Extrinsic resources play a role in achieving goals while intrinsic resources simultaneously also significantly foster growth, development and learning for employees (Halbesleben & Wheeler, 2008).

Thus, this model agrees with the COR theory, which states that individual motivation is primarily directed towards gaining and maintaining resources (Hobfoll, 2001). It is evident that resources are necessary to allow employees to fulfil needs such as relatedness, autonomy and competency (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). If employees are equipped with the necessary resources when demands are high, they will ultimately be more engaged in their work without feeling restricted or incompetent (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008). Another principle

of the JD-R Model is that two variances occur in one's psychological processing - either job strain or motivation (Bakker & Demerouti, 2007).

When it comes to the development of job strains, poorly designed jobs or enduring job demands exhaust an employee's mental and physical resources, and can therefore reduce energy and enthusiasm, further leading to serious health problems (Leiter, 1993; Demerouti, Bakker, Nachreiner, & Schaufeli, 2000). Contrary to this, the motivational process presumes that job resources can lead to high work engagement, low cynicism and excellent performance due to their motivational potential (Bakker & Demerouti, 2007). As discussed above, this study is aware that these resources play either an intrinsic or an extrinsic motivational role when it comes to fulfilling basic human needs (Deci & Ryan, 1985; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009; Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014).

2.2.4.2. The Affective Shift Model

The main premise of the Affective Shift Model is that work engagement will only result from an experienced shift of negative affect to positive affect (Bledow, Schmitt, Frese, & Kühnel, 2011). The proposed Affective Shift model from Bledow et al. (2011) is depicted in figure 2.

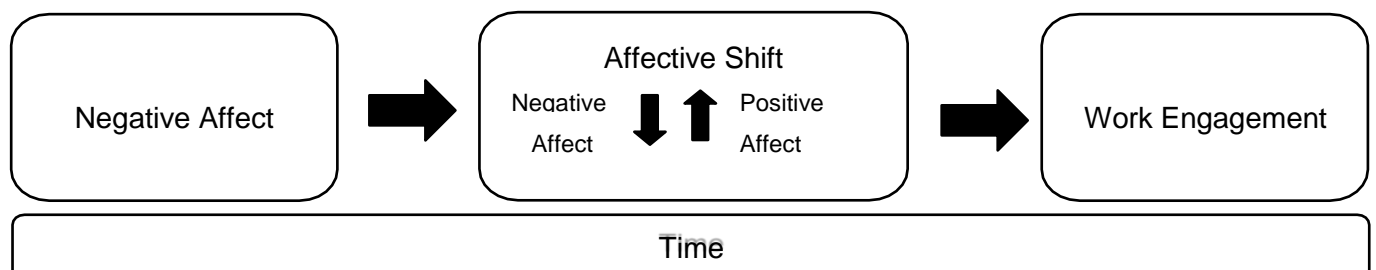


Figure 2. The Affective Shift Model

Source. Bledow, R., Schmitt, A., Frese, M., & Kühnel, J. (2011). The affective shift model of work engagement. *Journal of Applied Psychology*, 96(6), p. 1247

As stated by Bledow et al. (2011), individuals experience low work engagement if they remain in a negative affective state and do not experience a positive affect. Contrary to this, if a positive affect is experienced, the negative affect can then be seen as motivational in pushing the individual to increase their work engagement

(Lyubomirsky, King, & Diener, 2005). When a negative affect is followed by a positive affect, this exact sequence is called an affective shift (Bledow et al., 2011). Subsequently, the higher the level of negative affect experienced, the higher the level of positive affect experienced. Thus, it can be determined that this affective shift is more pronounced based on the level of affect experienced.

It is important to note that affective shifts can also occur at different time intervals (Bledow et al., 2011). For example, if an individual focuses on the affective shift over the timeframe of a day, the focus will be on how one's mood varies throughout the day, displaying one's level of positive and negative affect (Frijda, 1993). If individuals experience a negative mood during the morning and a positive mood in the afternoon, work engagement should be higher as an affective shift has occurred (Bledow et al., 2011).

2.2.5. Antecedents/Determinants of Work Engagement

Although more research can be conducted on factors that predict work engagement, it is still possible to recognise a number of potential antecedents. It is however important to remember that antecedents might differ for different jobs and organisational environments. Some identified determinants have however been listed in the following section as reported by Saks (2006).

2.2.5.1. Job Characteristics

Many employees search for a sense of return on investment in the form of psychological meaningfulness within their work setting (Kahn, 1992). Psychological meaningfulness can be achieved through work being challenging, by work showing variety, and by work that allows the use of different skills and the opportunity to make important contributions (Saks, 2006). Hackman and Oldham (1981) correspondingly state that jobs high in core job characteristics (skill variety, task identity, task significance, autonomy and feedback) incentivise employees to bring more of themselves into their work, and thus to be more engaged. Maslach, Schaufelli, and Leiter (2001) agree, stating that job characteristics are very important for work engagement.

2.2.5.2. Proactive Personality

Better work engagement can be identified amongst employees who proactively seek adequate resources to deal with challenging working environments (Hakanen et al., 2008). Hakanen et al. (2008), furthermore identifies a positive link between personal initiative and work engagement, as such individuals tend to do more than what is asked of them. According to Hyvönen, Feldt, Salmela-Aro, Kinnunen and Mäkikangas (2009), the more eager employees are to develop themselves with occupational knowledge, the more likely they are to engage themselves in their work. Individuals with proactive personalities experience a positive affect, where they can see possibilities and think more resourcefully (Parker & Griffin, 2011).

2.2.5.3. Perceived Organisational and Supervisor Support

The perceived amount of support from the organisation and supervisors of the employee has been identified as an important characteristic of safety (Kahn, 1990; Saks, 2006). Employees feel safe within their working environment if there is openness and supportiveness, because it allowed members to experiment, try new things and fail without fear of consequences (Saks, 2006). Similarly, May, Gilson and Harter (2004) report that supportive supervisor relations are positively related to psychological safety. Perceived organisational support (POS) is the belief that one's organisation values employee contribution and cares about their overall employees' well-being (Rhoades & Eisenberger, 2002). Perceived supervisor support (PSS) is also seen to be a good predictor of work engagement (Saks, 2006).

2.2.5.4. Performance

According to Bakker (2011) employees who are performing well have higher work engagement for three reasons. Firstly, they experience more positive emotions, which can broaden an individual's resources. Secondly, these employees experience better health, and can give sufficient energy necessary to their work. Thirdly, these employees find it easier to create their own resources and can transfer this behaviour to other co-workers within their working environment. Work engagement also plays a significant role in determining organisational success.

Work engagement levels amongst support staff in a tertiary education institution must

receive dedicated focus to ensure that demands are met, and that employees' well-being is nurtured, particularly given that employees are regarded as one of the largest assets in a company. Literature has also shown that work engagement does differ between men and women. Other variables influencing work engagement, namely job satisfaction and PsyCap, will be discussed in more detail in the following section.

2.3. Psychological Capital

In this section, focus will be placed on the independent variable, psychological capital (PsyCap) and its relationship with work engagement. Moreover, the nature and definition of PsyCap will be discussed together with its dimensions, theories and models.

2.3.1. Nature and Definition of Psychological Capital

Employees are a central part of any organisation, yet few still believe that employees are the core asset contributing to their success. It is therefore vital that organisations provide employees with more than just financial benefits, as they need to recognise the intrinsic value that their employees provide (Soni & Rastogi, 2017). Human capital needs to become a primary focus in contributing to organisational success.

Effort, therefore, needs to be placed on increasing and maintaining an individual's positive psychological state of development (Zamahani, Ghorbani, & Rezaei, 2011). As a result of the shift to a new perspective of positive psychology, focus has moved from examining what is wrong with an individual to examining what is right with the individual (Luthans & Youssef, 2007). Thus, positive subjective experiences, positive personality traits and positive institutional and social variables are now seen to promote well-being as a consequence to the new movement in positive psychology (Soni & Rastogi, 2017).

According to Luthans et al. (2008) a specific focus of positive psychological development based on "who you are" and "what you can become" is known as PsyCap. Chen and Lim (2012) add that PsyCap is a resource that can help employees thrive psychologically in order to successfully stay engaged and positive within their working environment. Thus, when it comes to the workplace, PsyCap is able to boost an employee's work performance by enabling them to put in the necessary effort, in so doing aiding them to get through challenging tasks and sustain positivity through

adversity (Sweetman & Luthans, 2010).

Over several years there have been many contributions to the concept of PsyCap, and various authors have uniquely defined PsyCap (Scheier & Carver, 1985; Stajkovic & Luthans, 1998; Snyder, Rand, & Sigmon, 2002; Luthans et al., 2007). This study focusses on the most prevalent definition of the core construct, PsyCap, as developed by Luthans et al. (2007, p.3), which is as follows:

Psychological Capital is characterised by (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive reference (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success.

2.3.2. Dimensions of Psychological capital

As evident from the definition, PsyCap is characterised by four dimensions or psychological resources: self-efficacy, optimism, hope and resilience. These four dimensions will be discussed in more detail in the following section.

2.3.2.1. Self-Efficacy

The dimension of self-efficacy originated from the work of Bandura (as cited by Avey, Nimnicht & Pigeon, 2010). Within a work setting, self-efficacy can be used interchangeably with confidence (Luthans, Vogelgesang, & Lester, 2006). Self-efficacy simply stated, refers to one's confidence when it comes to effectively accomplishing tasks or goals (Stajkovic & Luthans, 1998; Avey et al., 2010). Thus, the more successful an individual, the more positive self-image might tend to be. The positive psychological resource capacity of confidence, and self-efficacy in itself, can be developed (Luthans et al., 2007).

2.3.2.2. Optimism

Optimism refers to the positive outlook an employee has on the future, even in difficult times (Scheier & Carver, 1985). Thus, it is an employee's expectation that "good things, rather than bad things will happen to them" (Luthans et al., 2010, p.36). An optimistic employee will make objective and rational evaluations based on the specific situation and the resources that are made available (Luthans et al., 2008). They will be able to assess external, temporary and situational conditions (Youssef & Luthans, 2007). Rothmann and Essenko (2007) add that, in a South African context, optimism has a direct effect on exhaustion and cynicism amongst support staff. Contrary to this, some research indicates that optimism relates to work engagement and employee performance (Medlin & Faulk, 2011). Optimistic employees tend to approach challenges with confidence and persistence, and assume they can handle adversity successfully in the workplace.

2.3.2.3. Hope

Hope allows individuals to stay motivated when it comes to attaining success at hand by searching for the best path to take (Avey, Wernsing, & Luthans, 2008). Two dimensions of the construct, hope, can be identified, one being the agency and the other being the pathway (Snyder et al., 1991). The agency, which refers to 'willpower', is the motivational propensity that energizes an employee to work hard towards a goal consistently (Luthans et al., 2010). The pathway, which refers to 'way-power', mirrors an individual's perception of themselves (Peterson, Walumbwa, Byron, & Myrowitz, 2008) or the capability of generating alternative ways of completing tasks (Luthans et al., 2010). According to Youssef and Luthans (2007), hope has a positive effect on employee satisfaction, organisational commitment and work happiness. Therefore, nourishing employees' hope is essential in ensuring employee well-being (Weick & Quinn, 1999).

2.3.2.4. Resilience

Rutter (1987) initially defined resilience as an individual's capability of manipulating their environment so that they can protect themselves from the negative consequences of hostile events. According to the Penguin Dictionary of Psychology, the definition for resilience is: "the capacity to maintain effective psychological and behavioural adjustment in the face of factors that normally put individuals at risk for poor adjustment"

(Oyserman, Sorensen, & Reber, 2009, p. 231). Resilience is therefore a mechanism used by employees to cope, adapt, and react to problematic events, setbacks or failures (Norman, Avey, Nimnicht, & Pigeon, 2009). Therefore, resilience highlights the strength of an individual's coping resources to effectively deal with challenging situations (Baumgardner & Crothers, 2010). Resilience has therefore been associated with positive emotions, especially in troubled times (Philippe, Lecours, & Beaulieu-Pelletier, 2008). There is also a positive connection between resilience and work engagement (Luthans et al., 2007).

2.3.2.5. The Distinction between Self-Efficacy, Optimism, Hope and Resilience

Efficacy, optimism, hope and resilience are all seen as positive psychological resources that have motivating abilities (Peterson et al., 2008). What distinguishes them from one another is that they are conceptually and psychometrically distinct from one another (Luthans et al., 2008). The agency component of hope is shared with optimism, due to the fact that they both have motivating mechanisms (Peterson et al., 2008). The pathway components are however unique to each individual construct. Hope therefore differs from optimism, as hopeful individuals focus primarily on internal factors, whilst optimistic individuals react to negative situations by focusing on external factors (Peterson et al., 2008).

The pathway component of hope is shared with resilience, which is seen in an individual's flexibility when deciding on alternative paths or ways (Luthans et al., 2006). Resilience, however, is distinct from hope, optimism and efficacy, as it is more reactive in nature (Luthans et al., 2006). In essence, resilience is a consequent reaction to a trigger, unlike the other constructs (Luthans et al., 2006). Although resilience will always be associated with a trigger event, resilience is not completely reactive, as a resilient individual has the choice to take either proactive or reactive measures in challenging circumstances (Peterson et al., 2008). Even though each of the dimensions have individual value, when combined they form PsyCap, which results in a synergistic resource that is more than the sum of its parts (Avey et al., 2010).

2.3.3. Theories of Psychological Capital

Sweetman and Luthans (2010) found that attributes of work engagement are directly related to the attributes of PsyCap. PsyCap therefore forms a positive organisational-based approach towards understanding and improving employee performance (Simons & Buitendach, 2013). Several different theories explain PsyCap, one of the most commonly known being the Broaden-and-Build Theory of positive emotions (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008). The other, a fundamental theory that impacts upon PsyCap, is known as the Theory of Positive Psychology (Luthans et al., 2008). These two theories will be discussed in more detail in the following section.

2.3.3.1. Broaden-and-Build Theory of Positive Emotions

Traditionally, studies examining emotions ignored positive emotions, and thus an alternative model that captures the uniqueness of positive emotions more effectively, has been developed (Fredrickson, 1998). The Broaden-and-Build Theory, as depicted in figure 3, was developed by Fredrickson (2004, p.1367), and can be defined as “the form and function of a subset of positive emotions, including joy, interest, contentment and love”. The name of this theory was chosen because positive emotions seem to ‘broaden’ an individual’s temporary thought-action collection and build their personal resources (Fredrickson, 1998).

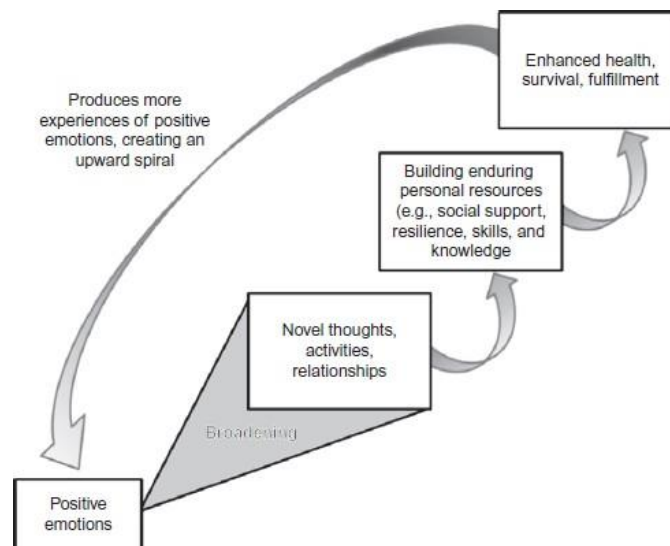


Figure 3. Broaden-and-build Theory of Positive Emotions

Source. Fredrickson, B.L., Cohn, M.A., Coffey, K.A., Pek, J., & Finkel, S.M. (2008). Open hearts build lives: Positive emotions, induced through loving-kindness meditation, building consequential personal resources. *Journal of Personality and Social Psychology*, 95(5), p.124

In a life-threatening situation, a narrower thought-action collection allows for quick and decisive responses to be made that can produce immediate benefits. However, positive emotions rarely arise in threatening situations and do not encourage quick and decisive action. The positive effect these positive emotions have is that they broaden one's thought-action collection, thus a selection of thoughts and actions become apparent in one's mind. These positive emotions give an individual a sense of joy, which therefore allows their thought pattern to push the limits and be creative. It is important to recognize that broadened mind-sets allow for long-term benefits, as broadened thought-actions build enduring personal resources, and these personal resources gained during the positive emotional state are long lasting. This theory provides a new perspective on the evolving importance of positive emotion (Fredrickson, 2004).

2.3.3.2. Positive Psychology

Positive psychology is an established field within psychology which has had a large influence on positive organisational behaviour (POB) (Simons & Buitendach, 2013). This field of positive psychology is about valuing well-being, contentment, and satisfaction (in the past); hope and optimism (for the future); and flow and happiness (in the present) (Seligman & Csikszentmihalyi, 2000).

POB also has a positive impact on human resource development and work engagement, as it equips individuals with skills they need in order to deal with the challenges of work (Luthans et al., 2008). POB is defined as “the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today’s workplace” (Luthans, 2002, p.59). Fortunately, POB is open to development and can therefore be developed through certain training interventions (Youssef & Luthans, 2007) such as task mastery experiences, positive role modelling, goal setting, contingency planning and social support activities (Luthans et al., 2006). It is important to remember that PsyCap is a core construct of POB, and can assist in addressing the necessary human capital issues in organisations (Simons & Buitendach, 2013).

2.3.4. Models of Psychological Capital

As Luthans et al. (2007) points out, organisations are required to invest in traditional forms of capital however, this may no longer be sufficient or necessary. Figure 4 portrays a traditional form of capital along with psychological capital.

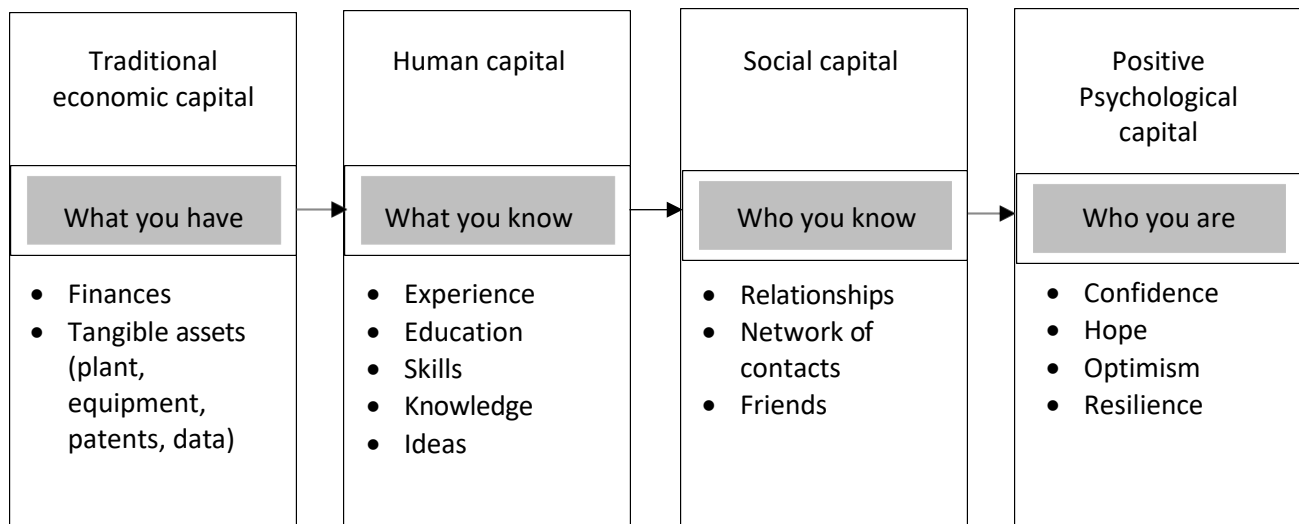


Figure 4. Expanding Capital for Competitive Advantage

Source. Luthans, F., Luthans, K.W., & Luthans, B.C. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizon*, 47(1), p.46

Luthans et al. (2004) states that PsyCap is distinguished and goes beyond the traditional forms of capital, as depicted in figure 5, to describe “who you are” and “who you are becoming”. Organisational focus has shifted from traditional financial capital to more of an individual capacity to thrive (Luthans et al., 2005). Research has suggested that an investment in PsyCap may produce a good return beyond that of the traditional forms of capital (Luthans et al., 2007). PsyCap can be managed and developed to the extent where organisations will benefit in seeing desirable behavioural outcomes and performance improvement. PsyCap has been linked to various positive outcomes on both individual and organisational level (Luthans et al., 2010).

The increase in pressure and competitiveness experienced in organisational environments is the reason there is a renewed focus on individual capacity (Avolio & Gardner, 2005). Gooty, Gavin, Johnson, Frazier and Snow (2009) add that organisations that focus on PsyCap, and the development thereof, could gain a competitive edge and create an energised workforce necessary for sustainable organisational success. Thus, it is important that emphasis be placed on understanding the role of PsyCap in employee behaviour.

Further research on the construct of PsyCap has resulted in the identification of

constructs including job performance, job satisfaction and work engagement (Luthans et al., 2010). Luthans et al. (2010) presents the following model in figure 5 to increase performance and work engagement through PsyCap.

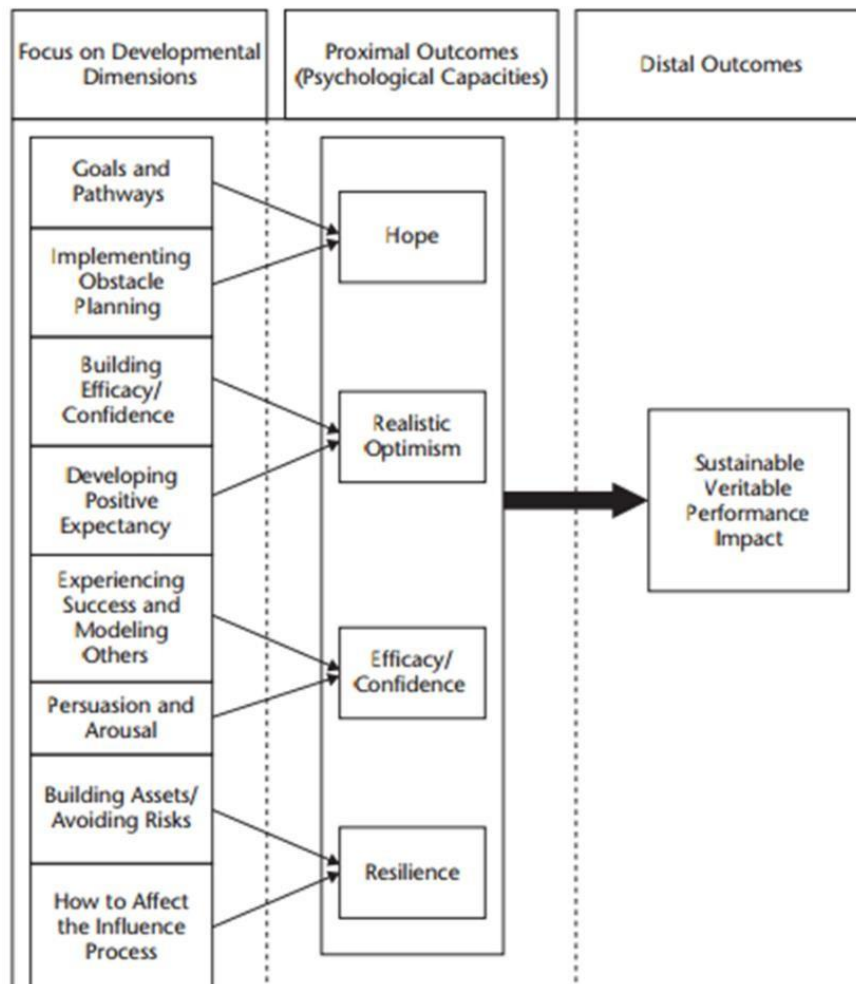


Figure 5. Positive Psychological Capital Intervention

Source. Luthans, F., Avey, J.B., Avolio, B.J., & Peterson, S.J. (2010). The development and resulting performance impact of positive psychological capital. *Human Resource Development Quarterly*, 21 (1), p.50

This figure was developed in order to improve work performance and engagement through PsyCap. Luthans et al. (2010) specifies that there are developmental areas situated in each of the four dimensions of PsyCap (hope, optimism, self-efficacy and resilience), and that an organisation can develop them within their employees. This can be done by guiding employees in developing and planning goals, making sub-goals

on how the main goals can be achieved and what resources must be used to accomplish these goals (Luthans et al., 2007).

This section explored definitions, theories, models and measurements of PsyCap, which consists of four dimensions namely, hope, self-efficacy, resilience and optimism. The influence of PsyCap on work engagement was investigated in this study, focusing on support staff at a tertiary education institution.

2.4. Job Satisfaction

In order to ensure a better understanding of the concept under investigation and its relationship with work engagement, this section will focus on definitions pertaining to job satisfaction. A key question is whether new constructs of engagement have discriminant validity relative to older constructs of job satisfaction (Christian et al., 2011). Therefore, discussion is needed on how job satisfaction effect work engagement. Theoretical approaches and models that apply to these constructs will further be identified together with the determinants of job satisfaction, leading to the outcomes that follow, both individually and organisationally.

2.4.1. Nature and Definition of Job Satisfaction

In Organisational Psychology, the topic of job satisfaction has received a large amount of attention (Judge & Klinger, 2007). Many social and environmental factors contribute to employee satisfaction. Work takes up a great deal of an individual's time, and therefore pressures, strains, and stressors accompanying these working environments have been known to impact on individual engagement (Faragher, Cass, & Cooper, 2005). Job satisfaction can however enhance an individual's work engagement and increase organisational effectiveness. When employees are exposed to task elements such as variety, identity, autonomy and feedback, their work becomes meaningful, a sense of responsibility is experienced and their productivity increases (Johnson, 2012).

Despite little evidence existing that affirms that engagement is distinct from similar constructs, it is important to note that job satisfaction and engagement have fundamental differences which is why the effects of job satisfaction on work engagement will be looked at. Engagement refers to activation as opposed to

satisfaction. Moreover, job satisfaction is an evaluation of job conditions or characteristics, whereas work engagement is a description of and individuals' experiences resulting from their work (Christian et al., 2011).

Different social scientists define and approach aspects of job satisfaction in distinct ways, and various definitions have become prevalent throughout the years. According to Herzberg (1968), job satisfaction and job dissatisfaction are different constructs. Herzberg (1968) hypothesized that job satisfaction is dependent on an employee's ability to attain organisational and individual goals, whereas job dissatisfaction is dependent on the organisations working environment. Othman et al. (2014, p.267) cite Locke's 1976 definition of job satisfaction as, "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences". Similarly, Hopkins (1983) defines job satisfaction as, "the fulfilment or gratification of certain needs that are associated with one's work" (as cited in Johnson, 2012, p.158).

A more recent definition of job satisfaction that supports Locke's definition is provided by Weiss (as cited in Johnson, 2012, p.158):

An attitude towards one's job resulting from the net sum of the individuals positive and negative emotions experienced at work. If the frequency of negative emotional experiences is greater than the frequency of positive emotional experiences, low job satisfaction results.

Focus will thus be placed on the definitions of Locke (as cited in Othman et al., 2014) and Mumford (as cited in Othman et al., 2014). These classifications have been identified as the most used classifications of job satisfaction. In the following sections, this study will focus on exploring specific theories and models relating to the construct under investigation, based on the definition chosen, and how it effects work engagement.

2.4.2. Theories and Models of Job Satisfaction

To obtain a better understanding of the different factors that influence job satisfaction, different theoretical models have to be examined. Specific emphasis will be placed on Herzberg's Two-factor Approach, the Job Characteristics Model, and Maslow's Hierarchy of Needs.

2.4.2.1. Herzberg's Two-factor Approach

According to Herzberg's (1968) Two-factor Theory, job satisfaction should not only focus on the working environment, but also on individual factors such as specific job and demographic characteristics. Figure 6 accurately compares organisational and individual factors to illustrate a comparison between these two components (Zhang & Von Dran, 2000).

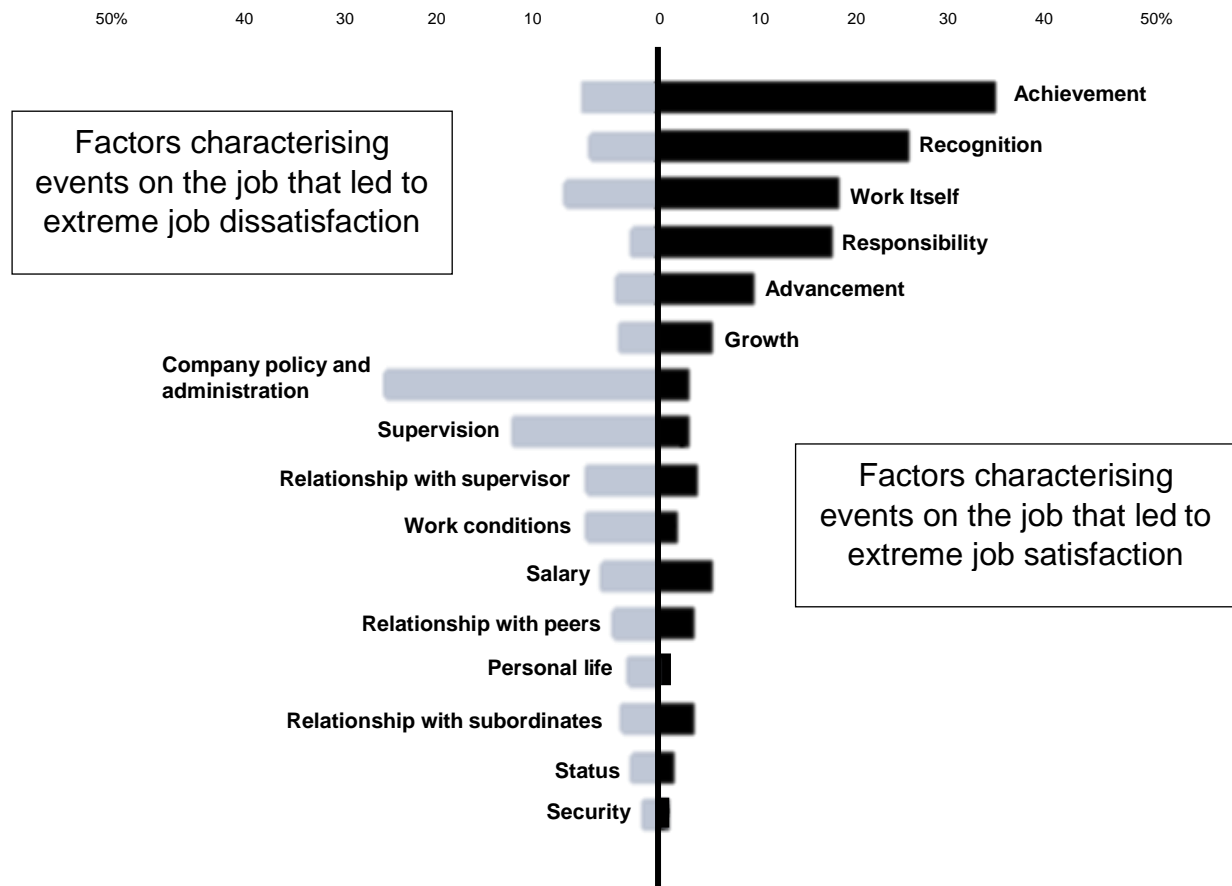


Figure 6. Comparison of satisfiers and dissatisfies for job satisfaction

Source. Zhang, P., & Von Dran, G. M. (2000). Satisfies and dissatisfies: A two-factor model for website design and evaluation. *Journal of the American Society for Information Science*, 51(14), p.1256

Herzberg's theory was specifically based on how an employee's characteristics were closely related to either job satisfaction or dissatisfaction. Within the working environment, specific factors that have the potential of leading to job dissatisfaction are known as hygiene factors. These factors include supervision, salary and working conditions. If these basic conditions of safety and social needs are not met, job dissatisfaction is likely to increase. When considering individual aspects, certain motivator factors can lead to job satisfaction. These factors motivate an employee to grow and advance in their field, and allows for achievement, autonomy engagement and recognition. Both organisational (hygiene) and individual (motivator) factors will influence an employee's experience at work, and affect how they perceive their working roles, thus portraying different levels of job satisfaction (Herzberg, 1968).

2.4.2.2. The Job Characteristic Model

Hackman and Oldham (as cited in Zhang & Von Dran, 2000), building on Herzberg's research, developed a Job Characteristic Model. This model elaborates on how Herzberg's hygiene and motivator factors influence motivational levels and job satisfaction within employees. This theory specifically cites five job dimensions that stimulate three psychological states (Faturochman, 1997). The Job Characteristic Model in Figure 7 illustrates. according to Hackman & Oldhman (as cited in Zhang & Von Dran, 2000). how these core job dimensions influence an individual's psychological state, and what the consequential personal and work outcomes could be.

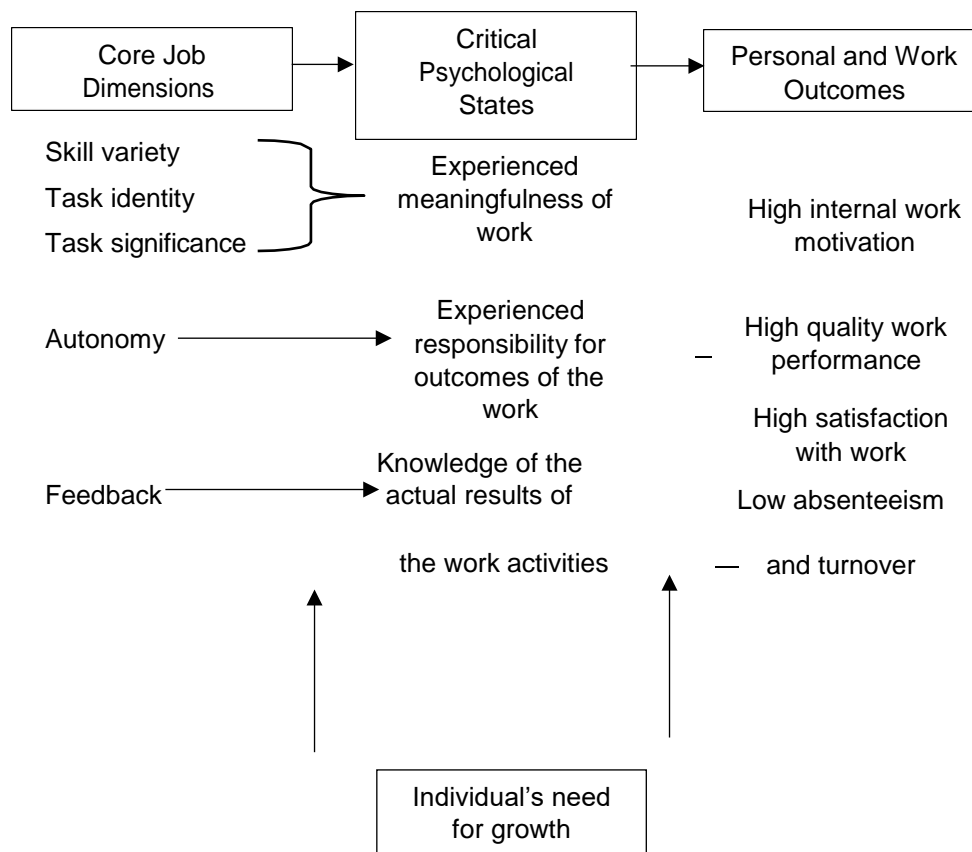


Figure 7. The Job Characteristics model

Source. Hackman, J.R., & Oldham, G.R. (1980). *Work redesign*. Addison-Wesley: Reading, MA, p.42

Hackman and Oldham (as cited in Zhang & Von Dran, 2000) identified five job characteristics that impact on three psychological states, and in turn influence personal and work outcomes. These five job characteristics are, and can be described as follows.

- **Skill variety:** the degree to which a job involves numerous activities in completing work, and where work is completed, by using a variety of skills and talents that the individual possesses.
- **Task Identity:** the degree to which a job requires a completed piece of work, by identifying an outcome and what needs to be done from beginning to end to achieve this outcome.
- **Task Significance:** the degree to which the job impacts on the lives of others, and whether these individuals are within the organizational context or within society.
- **Autonomy:** the degree to which the job allows the individual to plan and perform their work independently.
- **Job Feedback:** the degree to which performing the tasks of a job will allow the employee to receive accurate performance feedback.

It is important for these characteristics to be present in a job, as they lead to higher motivation, which is related to experiencing the three psychological states and in turn influences personal and work outcomes. These psychological states include experiencing meaningfulness of the work, experiencing responsibility for outcomes of the work, and knowledge of the actual results of the work activities. These states are stimulated by the job dimensions, and further generate specific results. The more positively an individual experiences their psychological states, the more likely they are to be engaged in working opportunities, personal accomplishment, and better learning and development (Faturochman, 1997).

Positive psychological states have various effects on an individual's outcomes. The first is high internal work motivation, which makes an individual feel good about themselves when they perform well at work. Secondly, positive psychological states could generate high quality work performance leading to

positive work engagement, where the individual performs to the best of their ability. Thirdly, these job dimensions can generate higher levels of job satisfaction, demonstrating how an individual feels about their work in general. Lastly, these dimensions can generate lower turnover, allowing for the quality and quantity of work performance to remain high. When work is more meaningful to an employee, and they are given more autonomy and feedback on work task results, an increase in motivation will be experienced (Faturochman, 1997).

2.4.2.3. Maslow's Hierarchy of Needs

A link between Maslow's Hierarchy of Needs and Herzberg's theory has also been identified. This link is substantiated by the explanation that hygiene and motivational factors can lead to individual growth and advancement in order for an individual to feel fully self-actualized. Maslow's (as cited in McLeod, 2007) model consists of a hierarchy of needs that an individual must sequentially fulfil in order to become fully self-actualized. Maslow further expanded on this model in 1970, introducing an eight-stage model (Figure 8) that was adapted to the previous model.

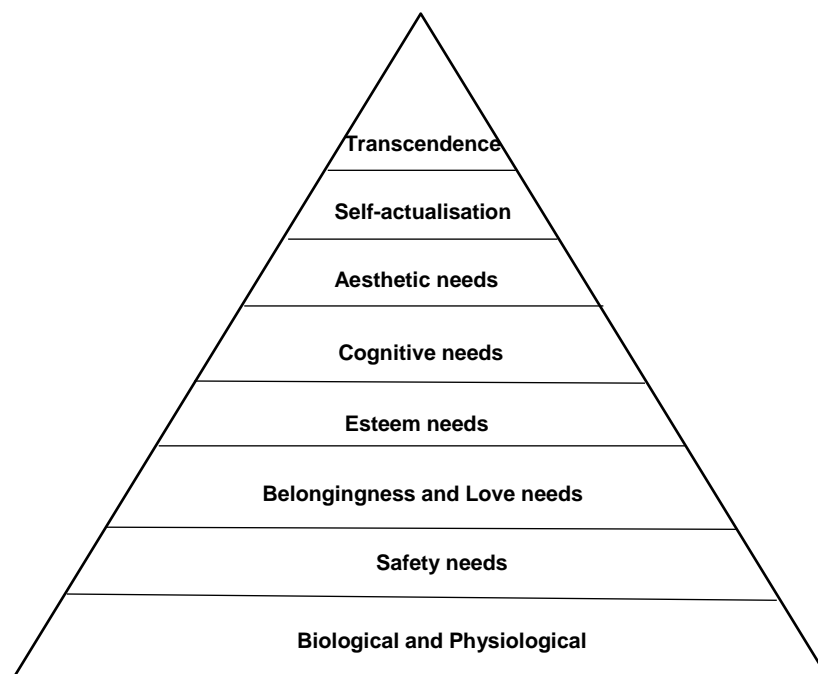


Figure 8. Maslow's Expanded Hierarchy of Needs

Source. Maslow, A.H. (1970). *Motivation and personality* (2nd ed.). New York: Harper & Row.p.38

The new model includes the stages of cognitive, aesthetic and transcendence needs. Biological and physiological needs, such as air, food and sleep, need to be attained. Secondly, the safety need of protection and security (such as the need for security in a job) is recognized. The love and belongingness need must be established, followed by esteem needs such as achievement, status and prestige. Cognitive needs of meaning and knowledge must be explored, while the aesthetic need of appreciation for balance and beauty must also be acknowledged.

Once all the above-mentioned stages have been achieved, the individual aspires towards personal growth and the realisation of personal potential by exploring self-actualisation needs. This is where individual work engagement is high. Lastly, transcendence needs must be discovered, where a shift occurs from staying focused on individual growth and development, to supporting and motivating others to achieve self-actualisation (McLeod, 2007). An individual will always be motivated to achieve a specific need before they can excel to achieve the next need, and all individuals are capable and aspire to move up the hierarchy towards self-actualisation.

2.4.3. Effects of Job Satisfaction on Work Engagement

There are different factors that could affect job satisfaction which ultimately effect work engagement, and Pienaar (2005) proposes that there are specific determining factors for this. These factors, identified in Figure 9, are as follows:

- Aspects outside the working environment (external factors).
- Aspects inside the working environment.
- Individual aspects (internal factors).

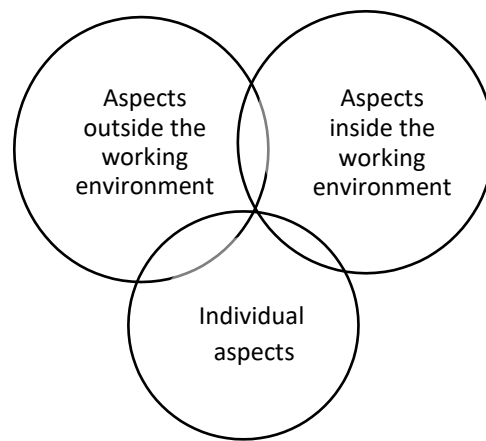


Figure 9. A systematic portrayal of aspects that influence job satisfaction
Pienaar, J.W. (2005). *Loopbaandilemmas van akademiese personeel binne 'n veranderende Suid-Afrikaanse hoër –onderwyswerksomgewing* (Doctoral dissertation, University of the Free State), p.19

Many variables can impact on job satisfaction, however the aspects mentioned in Figure 9 lead to an understanding of the primary causes of job satisfaction and its consequence on work engagement. Furthermore, this approach is an integrated approach, exhibiting how more than one variable can be influential. Thus, an interdependency can be identified between these three variables (Pienaar, 2005).

2.4.3.1. Variables Affecting Job Satisfaction inside the Working Environment

Numerous impacting factors, which can be identified within the working context itself, determine an employee's job satisfaction and its effect on work engagement. The most influential factors will be elaborated upon below.

Working Circumstances (conditions)

Robbins and Judge (2007) define working conditions as the extent to which both physical and psychological conditions of work facilitate job satisfaction. In order for employees to perform their tasks in an efficient manner and stay engaged, certain conditions must be present. Pienaar (2005) indicates that

physical conditions affecting job satisfaction include noise, lightning, ventilation, and temperature extremes. Cottini and Lucifora (2013) further propose that working conditions could have a significant influence on the psychological ailments of employees. However, the perception which employees form, pertaining to their physical working environment, normally arises from a deeper more psychological issue, and as employees rid themselves of these negative perceptions, environmental difficulties become easier to manage and positive engagement becomes visible (Pienaar, 2005). When employees perceive themselves to be safe in the working environment, and are given the opportunity to use their full potential to be productive within the organisation, job satisfaction will consequently rise (Janićijević, Kovačević, & Petrović, 2015) thus effecting work engagement positively.

Relationship with Co-workers

According to Harmer and Findlay, (2005) co-worker and direct supervisor relationships increase employee engagement. This finding supports previous research, indicating that greater employee cohesiveness and the prevalence of friendships in the organisation result in reduced turnover intentions and improved work experiences of employees (Harmer & Findlay, 2005.). Similarly, Janićijević, et al. (2015) state that the lack of conflict between co-workers, effective communication, as well as support by competent and dependable colleagues in performing tasks, has a significant positive influence on job satisfaction. If similarities in attitudes, values and in how the world is perceived exist between co-workers, the likelihood of group cohesion and mutual support will be greater (Pienaar, 2005).

Remuneration

According to Heathfield (as cited in Mustapha, 2013, p. 246) salary can be defined as “a fixed amount of money or compensation paid to an employee by an employer in exchange for productive work performed”. According to Barber and Bretz (as cited in Pienaar 2005), employee satisfaction with remuneration will lead to better engagement, lower absenteeism, decreased labour turnover and

increased job satisfaction. Contrary to this, Al-Zoubi (2012, p. 2) notes that “the level of salary is a secondary variable that cannot stand alone and its influence may be limited when the work quality is unsatisfactory”. It must however be taken into consideration that higher living costs force employees to seek higher incomes with the intention of ensuring their future and life satisfaction (Mustapha, 2013). Job dissatisfaction will increase when employees believe that they are not remunerated well leading to much lower levels of engagement (Mustapha, 2013). This emotional discrepancy will grow over time, leading to displeased employees who are not motivated to work for the organisation (Mustapha, 2013).

Role Overload

As individuals are exposed to too many role demands, and have little time available to address these demands, role overload occurs (Booth, Johnson, & Granger, 2005). Role overload, as Duxbury, Higgins and Lyons (2008, p. 130) explain “arises from the perception that the demands imposed by single or multiple roles are so great that time and energy resources are insufficient to adequately fulfil the requirements of the various roles to the satisfaction of self or others”.

Duxbury et al. (2008) add that work-overload can lead to increased anxiety levels, fatigue, burnout, depression, lower work engagement and emotional and physiological stress, which spills over into, and clashes with other roles, thereby decreasing levels of satisfaction and engagement pertaining to those specific roles. These varying role demands could lead to role strain, which restricts individuals in terms of performing to the best of their ability in these life roles (Duxbury et al., 2015).

2.4.3.2. Variables Affecting Job Satisfaction outside the Work Environment

Varying aspects outside of the work context can influence job satisfaction, thus effecting work engagement such as work-family conflict, economic and financial circumstances and relaxation. These triggering variables will be explored in detail hereafter.

Economic and/or Financial Circumstances

A growing economy provides greater opportunities for organisations to make profits, which motivates them to raise their standards (Kennedy & Malveaux, 2012). Contrary to this, when the economy is weak, prices as well as interest rates are high, leading to financial pressure and additional worry, which can decrease the job satisfaction of employees (Pienaar, 2005). In line with this, Kennedy and Malveaux (2012) suggest that an organisation's financial stability, the economy and job market are important aspects that can influence employee engagement and assist job satisfaction through opportunity motivators.

Relaxation

According to Lazarus and Folkman (as cited in Smith, 2007, p.87), relaxation is "a complex transaction of psychological and neurophysiological variables including life- change events, cognitive appraisals, coping resources, social supports, and spiritual assets". Schreuder and Theron (as cited in Pienaar, 2005) suggest that relaxation can influence the meaning of work and engagement experienced at work, adding that there is a ripple-effect correlation between work activities and non-work activities. Furthermore, there is a positive relationship between the degree to which employee's experience work as meaningful and the degree to which employees have a positive attitude towards relaxation (Schreuder & Theron as cited in Pienaar, 2005).

2.4.3.3. Individual Aspects Affecting Job Satisfaction

As environmental aspects play a role on one's job satisfaction and its effect on work engagement, an individual's personal characteristics also have a role to play. A closer observation of these influential aspects will be examined hereafter.

Locus of Control

Rotter (1966) refers to locus of control as the degree to which individuals believe they have control over the events that affect them. An individual's locus of control can be perceived as either internal locus of control or external locus of control (Rotter, 1966). Individuals who have a higher internal locus of control consider themselves to have full control over their lives, whereas those with higher external locus of control consider the lives they live and the decisions they make to be controlled by aspects outside of their control (Ye & Lin, 2015). Individuals with a higher internal locus of control also experience higher levels of well-being and will be able to handle obstacles arising in working environments more effectively, thus leading to increased levels of engagement and satisfaction (Carrim, Basson, & Coetzee, 2006; Karatas & Tagay, 2012). Contrary to this, an employee with a higher external locus of control will have lower job satisfaction levels and be less engaging as such an individual perceives having less say in the activities and outcomes that occur in the organisation (Carrim et al., 2006).

Type A and Type B Personalities

Personality types are used to distinguish between different types of individuals by explaining their opposing behaviour concerning fixed characteristics possessed (Jung, 1921). Personality types can be divided into Type A and Type B behavioural patterns. Friedman and Rosenman (1974) propose that Type A personalities tend to show behaviours of aggression, ambition, and competitiveness. Consequently, Type A personalities will get involved in a continuous effort of achieving as much as they can and being as engaged as possible in a limited amount of time, and will persist in doing this even if opposing efforts are made by things or others to halt their progress (Esha & Renu, 2011). Type B personalities however are "rarely hurried by the desire to obtain a wildly increasing number of things or participate in an endless growing series of events in an ever-decreasing amount of time" (Friedman & Rosenman, 1974, p. 84-85). Type B personalities can still be very engaged in obtaining the results required, but merely pursue these results in a different manner to Type A personalities (Esha & Renu, 2011).

2.4.4. Outcomes of Job Satisfaction on Work Engagement

Previously, organisations established certain behaviours that were seen to be the determining factors for job satisfaction or dissatisfaction (Spector, 1996). It was important for the organisation to understand the impact these aspects could have on the well-being of employees and the organisation at large, in order to attempt maintenance of high levels of job satisfaction among employees to ensure positive work engagement at all times (Spector, 1996; Oshagbemi, 2003). Organisational and individual consequences pertaining to lower or higher levels of job satisfaction will be discussed further hereafter.

2.4.4.1. Organisational Outcomes

The effects of job dissatisfaction on the organisation include, among others, lower levels of performance, increased turnover, lower levels of productivity, and an increase in the involvement of unions (Spector, 1996). Specific attention will be given to these outcomes as the influences of job dissatisfaction on work engagement are explored in more depth throughout.

Job Satisfaction and Turnover

Turnover studies made it possible for Spector (1996) to find a linkage between job satisfaction and turnover. The predictive nature of turnover studies allows for the conclusion that dissatisfaction is one of the factors that lead to individuals resigning from their jobs. In support of this, Dickter, Roznowski and Harrison (as cited in Spector, 1996) confirm that employees are more likely to resign when they are dissatisfied and disengaged. In addition, Maniram (2012) states that if the levels of job satisfaction are constantly low, individuals are more likely to resign. Extreme turnover can be very expensive and has a significant impact on productivity. Furthermore, Maniram (2012) adds that other issues related to excessive turnover and disengagement include long training times, schedules that are interrupted, extra overtime and a lack of well-informed personnel who are prepared.

Job Satisfaction and Engagement

Job engagement is defined as “the overall expected value from employees’ behaviours carried out over the course of a set period of time” (Motowidlo & Borman, 1993, p. 4). Spector (1996) adds that there is a relationship between job satisfaction and engagement. Firstly, job satisfaction might lead to engagement, as the harder individuals work, the better they will perform and connect with their work (Motowidlo & Borman, 1993). Secondly, engagement might lead to job satisfaction, for individuals who are engaged in their work will likely benefit from that engagement, and these benefits could increase job satisfaction (Motowidlo & Borman, 1993). Jacobs and Salomon (as cited in Spector, 1996) support the explanation that engagement influences job satisfaction, and indicate that individuals who are more engaged will experience more satisfaction, as they have received rewards. According to Spector (1996) an engagement-reward linkage will lead to a stronger relationship between job satisfaction and performance.

Job Satisfaction and Productivity

If an employee does not experience job fulfilment, their productivity and engagement at work will decrease and they will not give careful consideration to their working duties, resulting in decreased profit within the organisation. It might even reach a point where employees will search for different things to do that make them feel more euphoric, and therefore pay less attention to the work that they need to be focused on. When employees behave in this manner, they in turn may influence other employees to perceive their work in the same way. Therefore, disengagement will also affect organisational profits in an endless, ripple-effect cycle (Bako, n.d.).

2.4.4.2. Individual Outcomes

There are certain variables within an individual that affect general job satisfaction and ultimately effect work engagement. This study focussed specifically on certain individual outcomes namely absenteeism, health and well-being, job and life satisfaction, psychological outcomes, physical outcomes, and behavioural outcomes.

Health and Well-being

A decrease in employee health has been associated with a decrease in work engagement (Lu, Hannon, Laing, Kohn, Clark, Pritchard, & Harris, 2015). The health of an employee can be divided into two categories. Firstly, mental health includes levels of depression, anxiety, burnout, and self-esteem (Faragher et al., 2005). Secondly, physical health includes complaints about headaches, dizziness, muscle pain, cardiovascular disease, and digestive problems (Faragher et al., 2005). However, when an employee is in a positive, motivated state of work-related well-being, better overall health is experienced and said employees are therefore more productive, more satisfied and therefore more engaged (Lu et al., 2015). Well-being programs have been established to deal with these health issues, but have limitations. The degree of success will depend on the employee's motivation to participate (Lu et al., 2015). Therefore, it is important to establish efficient programs and utilise them as soon as any health problems are identified, because if these issues are not resolved in time, it could lead to emotional exhaustion affecting both family and work life (Faragher et al., 2015).

Job and Life Satisfaction

Spector (1996, p.216) defines life satisfaction as "how satisfied a person is with his or her life". Life satisfaction is thus an indicator of general happiness and well-being. Moreover, Spector (1996) proposed three hypotheses with regards to how job and life satisfaction influence one another. Firstly, the spill-over hypothesis states that either satisfaction or dissatisfaction in one area of life affects other areas of life. Secondly, the compensation hypothesis stipulates that when there is dissatisfaction in one area of an individual's life, it will be compensated for by another area. Lastly, according to the segmentation hypothesis, satisfaction in one area of an individual's life has no relation to the satisfaction in another area. These hypotheses lead to different predictions (Spector, 1996).

The spill-over hypothesis predicts a positive correlation, the compensation hypothesis a negative correlation, and the segmentation hypothesis predicts no correlation (Spector, 1996). Explanations, that job satisfaction causes life

satisfaction and vice versa, have been advanced. Judge and Watnabe (as cited in Spector, 1996) support this by suggesting that life and job satisfaction influence one another.

2.4.4.3. Psychological Outcomes

Noe, Hollenbeck, Gerhart, and Wright (2000) state that the more engaged and satisfied an employee, the more positive health outcomes are experienced, including emotional stability and increased self-esteem. Additionally, when dissatisfaction is experienced, there is an increased risk of experiencing feelings of low self-worth which can result in depression, anxiety and aggression. If individuals are unable to prevent these feelings from spilling over into their social lives, these feelings could lead to emotional exhaustion (Faragher et al., 2005).

2.4.4.4. Behavioural Outcomes

Alcohol abuse and dependency has long since been a challenge for dissatisfied employees. Drinking specifically is often viewed as an acceptable way of dealing with different stressors. Occupations where employees are repeatedly exposed to traumatic experiences such as suicide, domestic violence or dealing with individuals that have mental health challenges, can lead to an increase in the use of alcohol in order to escape reality. Repeated negative patterns of excessive alcohol use can lead to problems in an individual's occupation and home life (Willman, n.d.).

2.5. Conclusion

It is evident, when looking at these variables, that there are many influencing factors involved when it comes to work engagement and a wealth of knowledge exists on how these variables are empirically interrelated. However, it is also notable that any one of these factors alone could be the single cause of lower levels of work engagement. Moreover, job satisfaction in and of itself can also correlate with work engagement by inversely be affected by lower levels of work engagement. It is evident that the more

positive an individual's psychological capital, the less likely the individual is to be negatively impacted by certain working circumstances, who will therefore show higher levels of work engagement as well as job satisfaction. This reflects covariation between all three focal constructs that are being investigated.

This study focuses on further investigation identifying whether job satisfaction and Psychological Capital have an effect on work engagement, as stipulated in the abovementioned literature and below depicted theoretical model, or whether an individual can experience engagement at work without the effects of these two components. Figure 10 depicts the theoretical model and the relationship:

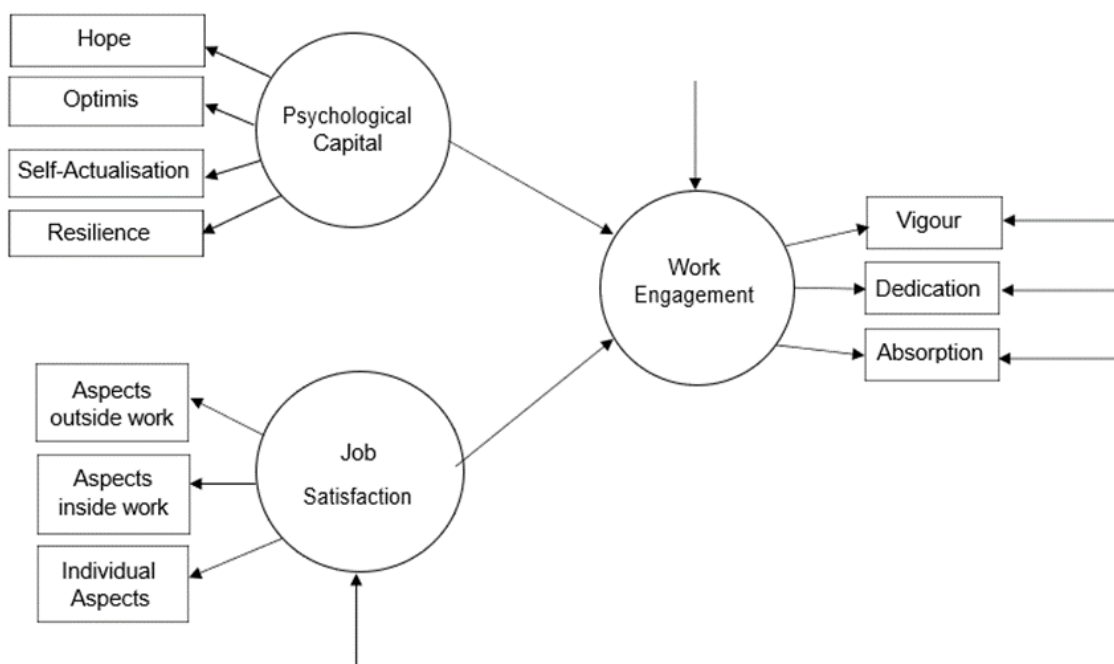


Figure 10. A theoretical model of the different relationships between Work Engagement, Psychological Capital and Job Satisfaction

CHAPTER 3

RESEARCH METHODOLOGY

3.1. Research Design

Research design includes the method of collecting and analysing certain data attained on the variables being analysed in a specific research problem (Kothari, 2004). Therefore, it can encompass the study type, the research problem, hypothesis and data collection methods and analysis plans (Kothari, 2004). An ex post facto correlation design, where the independent and dependent variables are only observed across individuals to establish the extent to which they co-vary, was used for this study. Neither random assignment nor experimental manipulation of the independent variables occurred (Research Methodology, 2006). Therefore, research was drawn from a population large in size through non-probability sampling, and without the need for randomly selected subjects (Tansey, 2007). There were potential concerns regarding the non-experimental methods utilized, including the following (Christensen, as cited in Oehley, 2007):

- a low internal validity;
- excluding the ability to allocate causality;
- the third variable (the fact that two variables may be correlated not because they are causally related, but because a third variable caused both of them);
- the lack of ability to establish directionality.

The research design of this study was however best achieved within a quantitative research paradigm. According to Creswell (1994), quantitative research explains a phenomenon by collecting numerical data that is analysed using mathematically based methods, mostly statistics, that allow for a conclusion to be formed based on the results achieved (Creswell, 1994).

Research Hypothesis

The main purpose of this research was to discover answers to questions. Thus, there were certain research objectives maintained throughout the process, so

that these questions could be explored effectively. Furthermore, this allowed for the hypothesis of a causal relationship between variables to be tested (Kothari, 2004).

Hypothesis 1:

Null hypothesis: Variances in work engagement cannot be explained by psychological capital and job satisfaction among support staff at a Holdings establishment.

Alternative hypothesis: Variance in work engagement can be explained by psychological capital and job satisfaction among support staff at a Holdings establishment.

Hypothesis 2:

Null hypothesis: There are no statistically significant differences in work engagement with regards to gender among support staff at a holdings establishment.

Alternative hypothesis: There is a statistically significant difference in work engagement with regards to gender among support staff at a holdings establishment.

3.2. Research Methodology

Research Methodology is the science of studying how certain research is carried out, and encompasses a scientific and systematic search for pertinent information to describe, explain and predict a particular phenomenon under study (Kothari, 2004). This section presents the research methodology that this study used in order to empirically evaluate the proposed variables discussed in the previous chapter.

According to Collis and Hussey (2002), the term methodology refers to the overall approaches and perspectives to the research, and therefore the researcher attempts to answer certain questions including why, how, where, and what type of data was collected. In this study, the researcher used on-line

self-administered composite questionnaires to collect data. These questionnaires were distributed to permanent support staff on behalf of the researcher, where they were able to complete it voluntarily.

3.3. Population

The population utilised were the support staff at Meridian Holdings. The envisaged sample taken from this population consisted specifically of permanent support staff from this establishment. The respective human resource management department was visited to request participation and approval to conduct the research. Ethical clearance was obtained from Stellenbosch University and Meridian Holdings. Furthermore, permission was granted to use Meridian Holdings name throughout the script. Once permission had been granted, e-mails consisting of the composite questionnaire, and requesting participants to take part in the study, was sent to the human resource department. A designated individual within the department then distributed this e-mail to the selected permanent support staff on behalf of the researcher, inviting them to participate in the study. The estimated sample consisted of 118 participants, and participation was strictly on a voluntary basis.

Meridian Holdings Services provides support in human resources (HR) to three different companies, which include Meridian Wine Merchants, Craft Liquor Merchants and Cool Wines. Each company is comprised of three departments (Marketing, Sales and Finance) consisting of 189 permanent staff and 25 temporary staff.

Due to the fact that an establishment was involved within this research, ethical screening took place. If any unforeseeable risks had arisen, they would have been of a low risk, as the topic is largely uncontroversial and was undertaken through surveys. The participants were all adults and were not considered vulnerable. The information gathered through this research was regarded as non-sensitive, as it was opinion eliciting, and thus did not require personal information. All necessary ethical procedures were taken into consideration to ensure that the sample group felt comfortable at all times. Individuals were informed that they could choose to withdraw at any time should they feel

uncomfortable, by merely closing the window on which the electronic survey appeared and exiting the survey. Confidentiality was explained and attained throughout the process.

3.4. Measuring Instruments

The on-line self-administered composite questionnaire contained measures for work engagement, job satisfaction, psychological capital and certain demographic variables. The questionnaire was in English and was compiled with reference to existing questionnaires that are known to be valid and reliable. Thus, the composite questionnaire was comprised of the Utrecht Work Engagement Scale (UWES) which measured work engagement, the Psychological Capital Questionnaire (PCQ) for measuring PsyCap, and the Job Description Index (JDI) to measure job satisfaction. These instruments will be explained in more detail in the following sections.

3.4.1. Demographics

One section of the questionnaire consisted of questions regarding the demographic profile of the sample population. The demographic variables included gender, age, ethnic group, length of service at institution, highest qualification, job grade, department and company.

3.4.2. Psychological Capital Questionnaire

Luthans et al. (2007) designed the Psychological Capital Questionnaire (PCQ), which is known as the standard measure with which to assess PsyCap within an organisational context (Luthans et al., 2008). This questionnaire consisted of items which allow for the measurement of PsyCap dimensions namely, hope, optimism, resilience and self-efficacy (Luthans et al., 2007). The PCQ has 24 items, each dimension having 6 items, which is answered on a Likert-type scale with categories ranging from '1=strongly disagree' to '6=strongly agree' (Luthans et al., 2007). Luthans et al. (2007) suggests that the overall reliability of the PCQ ranges between .89 and .91.

Three different studies confirm that the construct has strong external validity, face validity, content validity, discriminant validity and convergent validity (Luthans et al., 2007). Various studies conducted across multiple samples, and compared with each other, have also shown that each of the components within this questionnaire demonstrates discriminant validity (Bryant & Cvengros, 2004; Carifio & Rhodes, 2002; Magaletta & Oliver, 1999; Youssef & Luthans, 2007).

3.4.3. Job Satisfaction

An abridged version of the Job Description Index (JDI) developed by Smith, Kendall and Hulin (as cited in Oehley, 2007) was used to measure job satisfaction. According to Mbebe (2005), after 40 years of research and application, the JDI remains one of the most widely used measures of job satisfaction. The JDI allows employees to describe whether or not each of several adjectives describes particular aspects of their job. Five important aspects of job satisfaction are measured by the JDI. The five aspects of the JDI are work itself, pay, opportunities for promotion, supervision and co-workers. Furthermore, the Job in General (JIG) scale evaluates overall job satisfaction. The internal validity for each subscale of the JDI and JIG has proven to be high, with coefficient alpha values ranging from between .86 to .91 (Oehley, 2007).

3.4.4. Utrecht Work Engagement Scale

The Utrecht Work Engagement Scale (UWES) was developed by Schaufeli et al. (2002), and is the most commonly used instrument for measuring work engagement. Thus, this scale can be used to measure work engagement based on the definition put forth by Schaufeli et al. (2002). The self-report questionnaire consisted of 17 items (UWES-17), and measures three underlying dimensions of work engagement, which include vigour (6 items), dedication (5 items) and absorption (6 items) (Dane & Brummel, 2013). Recently, a shorter 9-item version of the UWES was developed which included the assessment of the dimensions by using only three items per dimension (Schaufeli, Bakker & Salanova, 2006). In this study, the original

UWES-17 was utilised.

The UWES has proven to be reliable, and internal reliability has been identified among all dimensions (Seppälä et al., 2009). The Cronbach's alpha coefficient of the UWES-17 ranges between .75 and .83 for vigour, between .86 and .90 for dedication, and between .82 and .88 for absorption (Seppälä et al., 2009). The UWES is known to have good construct validity (Seppälä et al., 2009; Storm & Rothmann, 2003), which has been shown through confirmatory factor analysis (Schaufeli et al., 2002).

3.5. Data Collection

An e-mail requesting participation was sent to the human resource management departments at the participating establishment (Meridian Holdings), who in turn distributed the request to the permanent support staff on behalf of the researcher. Therefore, the researcher did not have any access to personal employee information, and was not able to link any data to any specific participant. The e-mail included a cover letter informing participants of the objectives in the study, the necessity of their participation, a guarantee of their confidentiality, and provided access to the questionnaire.

Any information obtained in connection with this study remains confidential and would be disclosed only with the participant's permission or as required by law. No data collected can be linked to any participant at any given time. Confidentiality was maintained by restricting access to the data for both the researcher and supervisor, by means of storing the data on a password-protected computer and by only reporting aggregate statistics for the validation sample. The results of the study were disseminated by means of an unrestricted electronic thesis and an article published in an accredited scientific journal. Collected data will only be kept for a maximum of five years.

Approximately one (1) hour was required of respondents to complete the survey. The initial request was followed up by e-mails within two weeks. Thereafter sufficient time was given to the sample group to complete the questionnaire and submit their opinions. The raw data was collected on an Excel database. The advantages of using a web-based data survey collection technique can include

the following (Schlechter, 2007):

Cost - Very few additional costs are incurred after the web-based survey has been set-up and installed. Cost for paper, printing and postage is minimized. Furthermore, the software package manages the data capturing, which decreases capturing errors.

Reaction Time - Web-based survey reaction times are usually faster than the traditional paper-and-pencil method. Participants that are invited electronically usually respond on the day the invitation is received or when they see the invitation for the first time. Most respondents, including those who do not see the invitation immediately, will respond within a few days.

Accurate information - Respondents will be more honest and accurate when answering sensitive questions on a computer program than on paper or in a face-to-face situation.

Data formatting - Web-based surveys can produce data in an appropriate format for Excel-files, to store and be used for data analysis purposes.

3.6. Data Analysis

According to Leedy and Ormrod (2005), descriptive statistics summarises a given data set obtained. Item analysis was performed by Statistica (version 13). Descriptive statistics was explain using means, standard evaluations, minimums and maximums. Reliability was assessed by means of Cronbach's alpha coefficient and Multiple Factor Analysis (MFA) was used as multiple sets of variables can be analysed using this method.

Analyses of variance (ANOVA) was the chosen form of analysis for this study and was performed to investigate differences in the dependent variables between males and females. ANOVA was the chosen analysis to focus on due to the fact that two independent variables were investigated in this study (psychological capital and job satisfaction). A correlation exists if one variable increases should another variable either increase or decrease in a somewhat predictable fashion (Leedy & Ormrod, 2005). Partial Least Squares Structural Equation Modelling (PLS-SEM) was conducted to investigate combined relationships between job satisfaction, psychological capital and work

engagement. Multiple factor Analysis (MFA) was further used to analyse several data sets measured in one observation, as it projects the original data sets to allow for an easy analysis of commonalities and discrepancies (Abdi, Williams & Valentin, 2013).

3.7. Conclusion

Given the high working demands expected from support staff within holdings establishments, an effective strategy is critical to ensure that staff remain focused and absorbed in their working capacities, so as to ensure a high level of work productivity which will be beneficial for both the individual and institution. Human resources departments must ensure that the Institution as a whole treats work engagement as a strategic business imperative. It is important for the institution to entrust time and resources to define what work engagement is, and what needs to be done to sustain it at a productive level.

It is vital for organisation's to take the necessary steps to better understand what effective work engagement within the institution is about. This study emphasises the importance of understanding work engagement amongst support staff. If institutions in South Africa wish to create and sustain work engagement, urgent attention must be given to the antecedents influencing individuals within their workplace environment. It is in the hands of Senior Management of an institution to ensure that necessary strategies are put in place. The human resources department is equally responsible for assisting Senior Management in the pursuit of better work engagement.

CHAPTER 4

PRESENTATION AND DISCUSSION OF RESEARCH RESULTS

4.1. Introduction to Results

In this chapter the results of the statistical analyses conducted will be presented. The theoretical model acquired in Chapter 2 (depicted as figure 10) is based on relationships found amongst specific variables from investigating literature. The results of this study will be investigated in order to determine the reliability of the scales used, and the applicability of the theoretical model formed. Results will be provided for the different constructs that were tested - psychological capital, job satisfaction, work engagement and gender. These constructs were formed through reliability analysis as well as correlational analysis. Furthermore, this chapter provides diagrams showing the prevalence statistics for each construct. A multiple factor analysis (MFA) was added to depict the correlation between scales and sub-scales used. Lastly, a Structural Equations Model (SEM) was used to portray the structural relationship between the measured constructs. The results aim to indicate differences as well as similarities between the components.

4.2. Missing Values

Given the format of the online composite questionnaire, not all candidates fully completed all sections, therefore $n \neq 118$ for all scales. This meant that data was missing in some cases. Nonetheless, did not have a large impact on the overall scoring.

4.3. Descriptive Statistics for the Total Sample

Figure 11 depicts the total number of respondents that completed the questionnaire. The number of support staff that participated in the online composite questionnaire was 118 ($n=118$). The respondents were primarily women (62% / $n=73$), while only 38% ($n=45$) were men.

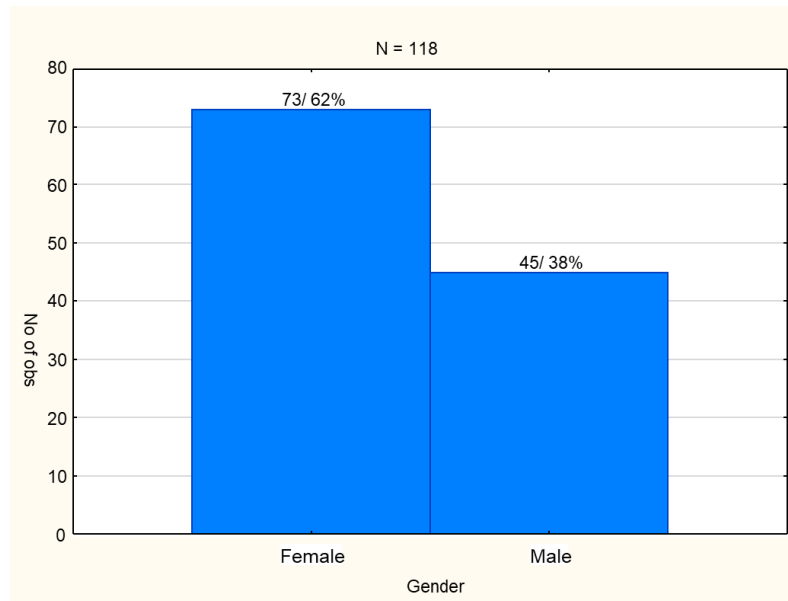


Figure 11. Histogram representing the gender variation within the sample group

In terms of age variation in the respondents, 6% (n=7) were between 18 and 24 years of age, followed by the majority of 46% (n=54) who were between 25 and 34 years of age. A total of 31% (n=36) were aged between 35 and 44 years, 13% (n=15) between 45 and 54 years, 4% (n=5) between 55 and 64 years and lastly 1% (n=1) 65 years and older. The mean age of the total sample was therefore 36.67 years (SD = 9.7042). Figure 12 represents the findings below.

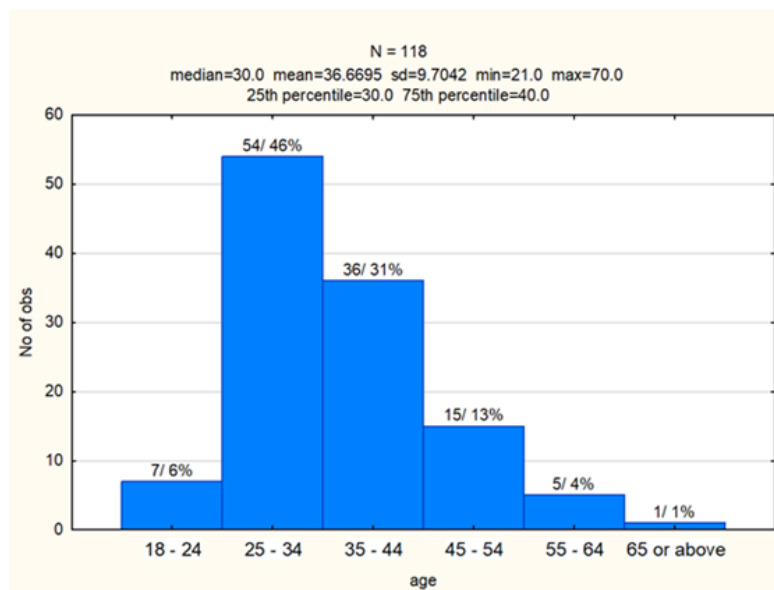


Figure 12. Histogram representing the age variation within the sample group

The reported mean years worked at the company was 4.33 years (SD=4.7231). These results can be seen in figure 13.

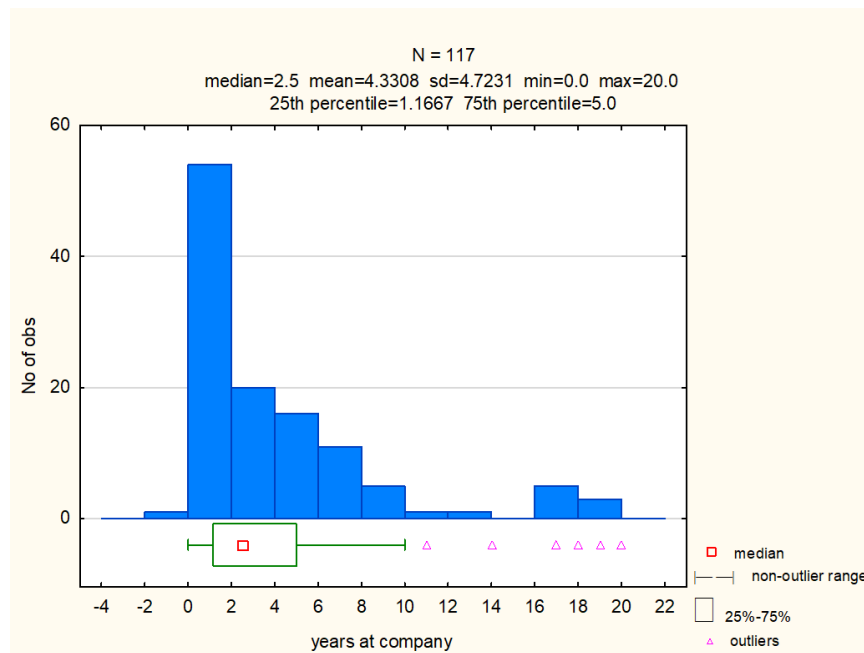


Figure 13. Histogram representing the variation in years worked at the company

4.4. Item Analysis

Item analysis was performed on all four measurement scales used in the study in order to ensure internal reliability. It was necessary to ensure that the instruments used reflected the variables they were intended to reflect within the study. Item analysis was performed by means of Statistica (Version 13). The Cronbach's alpha coefficient extracted from the results indicates the reliability of the scale. According to numerous researchers, Cronbach's alpha coefficient should preferably exceed the value of .70 to indicate a reliable item (Kerlinger & Lee, 2000), however a value of .60 would also be accepted (M. Kidd, personal communication, October 25th, 2018). In this study, a Cronbach's alpha coefficient of .60 or higher was regarded as satisfactory, and reliability values below .60 qualified for elimination. However, because all instruments used were standardised, no items would be removed/eliminated from the scales. The Corrected Item-Total Correlation was also examined, as this indicates the degree to which each item correlates with the total score. Values lower than .30 may indicate that the item is not measuring the specific scale (Pallant, 2007).

4.4.1. Reliability Analysis: Utrecht Work Engagement Scale (UWES)

The Utrecht Work Engagement Scale consists of 17 items which are related to the three subscales namely Absorption, Dedication and Vigour. Each of these subscales were subjected to item analysis.

4.4.1.1. Reliability Results: Absorption Subscale

Table 1 represents the reliability results for the Absorption subscale which consists of 6 items. The Cronbach's alpha coefficient of this subscale was found to be .72. This is seen as a satisfactory value, as it is above the recommended value of .70 (Pallant, 2007). From the item-total statistics it was evident that the item-total correlations of all items were .30 and above.

Table 1

Reliability and item-total statistics of the absorption subscale

	Mean if item deleted	Variance if item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
WE3	20.71	14.07	.61	.64
WE6	21.71	15.14	.43	.69
WE9	20.69	16.50	.46	.69
WE11	21.14	15.63	.53	.67
WE14	21.61	15.61	.45	.69
WE16	21.93	16.33	.30	.74

Note. Cronbach's alpha and 95% CI: 0.72(0.61, 0.80) Summary for scale: Mean=25.5593 Std.Dv.=4.62535 Valid N:118
Standardized alpha: 0.73 Average inter-item corr.: 0.31.

The results of the item analysis on the Absorption subscale raised no concerns. All the items of this subscale showed reliability, and no items were problematic. Therefore, it is probable that this subscale is reliable.

4.4.1.2. Reliability Results: Dedication Subscale

Table 2 represents the reliability and correlation results for the 5-item Dedication subscale. The Cronbach's alpha coefficient of this subscale was .88 which is acceptable, as it is above the recommended value of .70. All items presented an item-total correlation above the recommended cut-off value of .30. No items were therefore flagged as problematic. The results of the item analysis for the Dedication subscale did not raise any concerns.

Table 2

Reliability and Item-Total Statistics of the Dedication Subscale

	Mean if Item deleted	Variance if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
WE2	18.55	13.06	.76	.84
WE5	18.28	13.51	.77	.84
WE7	18.69	11.86	.83	.82
WE10	17.92	14.52	.67	.86
WE13	18.90	14.23	.54	.89

Note. Cronbach's alpha and 95% CI: 0.88(0.83, 0.91) Summary for scale: Mean=23.0847 Std.Dv.=4.53208 Valid N:118 Standardized alpha: 0.88 Average inter-item corr.: 0.61

4.4.1.3. Reliability Results: Vigour Subscale

With regards to the 6-item Vigour dimension and final subscale of the UWES, the Cronbach's alpha coefficient was found to be .85. Once again, this was satisfactory and above the recommended value. All items appeared to have item-total correlations higher than .30. Thus, no items were flagged as problematic. The reliability and item-total results for the Vigour subscale is presented in Table 3.

Table 3

Reliability and Item-Total Statistics of the vigour subscale

	Mean if Item deleted	Variance if deleted	Item-Total Correlation	Cronbach's Alpha if deleted
WE1	22.52	18.22	.69	.82
WE4	22.36	17.33	.70	.81
WE8	22.32	17.86	.66	.82
WE12	21.94	19.58	.55	.84
WE15	22.31	18.64	.60	.83
WE17	21.90	18.92	.61	.83

Note. Cronbach's alpha and 95% CI: 0.85(0.79, 0.89) Summary for scale: Mean=26.6695 Std.Dv.=5.09744 Valid N:118
Standardized alpha: 0.85 Average inter-item corr.: 0.49

4.4.2. Reliability Analysis: Psychological Capital Questionnaire (PCQ)

The PCQ consists of 24 items, each dimension having 6 items. The dimensions tested included self-efficacy, hope, resilience and optimism. These subscales were also subjected to item analysis.

4.4.2.1. Reliability Results: Self Efficacy

Table 4 shows the Cronbach's alpha coefficient to be .86, which is satisfactory. All items presented item-total correlations of above .30. Therefore, no items were seen to be problematic and the subscale shows reliability.

Table 4

Reliability and Item-Total Statistics of the Self Efficacy Subscale

	Mean if Item deleted	Variance if Item deleted	Item-Total Correlation	Cronbach's Alpha if deleted
PC1	23.56	22.57	.62	.84
PC2	23.73	20.38	.74	.81
PC3	23.74	19.43	.79	.80
PC4	23.53	21.06	.74	.82
PC5	24.48	19.44	.47	.89
PC6	23.80	21.18	.67	.83

Note. Cronbach's alpha and 95% CI: 0.86(0.75, 0.91) Summary for scale: Mean=28.5678 Std.Dv.=5.40256
Valid N:118 Standardized alpha: 0.88 Average inter-item corr.: 0.55

4.4.2.2. Reliability Results: Hope

Table 5 illustrates that all items present in this subscale show item-total correlations of above .30. Furthermore, the Cronbach's alpha coefficient of this scale was reported to be .86 as well. Since it is above the recommended score of .70, the subscale is seen to be reliable. No items were flagged as poor.

Table 5

Reliability and Item-Total Statistics of the Subscale Hope

	Mean if Item deleted	Variance if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
PC7	23.49	18.66	.64	.84
PC8	23.53	18.32	.72	.82
PC9	23.18	19.25	.68	.83
PC10	23.42	19.53	.59	.85
PC11	23.80	18.38	.74	.82
PC12	24.06	19.36	.55	.86

Note. Cronbach's alpha and 95% CI: 0.86(0.76, 0.91) Summary for scale: Mean=28.2966 Std.Dv.=5.16945 Valid N:118 Standardized alpha: 0.86 Average inter-item corr.: 0.52

4.4.2.3. Reliability Results: Resilience

Table 6 depicts the analysis done for the subscale, Resilience. The Cronbach's alpha coefficient of this scale was reported to be .77. This was higher than the recommended value of .70, showing that the subscale was satisfactory regarding reliability. All items presented item-total correlations of above .30, except for the reversed item PC13, showing that this particular item may not be measuring the specific scale accurately. This could indicate that respondents may have been confused by the reversed items. This does not however affect the overall item-total correlation score for the subscale, which will be discussed later.

Table 6

Reliability and Item-Total Statistics of the Subscale Resilience

	Mean if Item deleted	Variance if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
PC13	24.31	15.99	.21	.83
PC14	23.86	14.41	.68	.70
PC15	23.42	16.01	.43	.76
PC16	24.27	13.50	.60	.71
PC17	23.58	14.24	.70	.69
PC18	24.02	14.30	.62	.71

Note. Cronbach's alpha and 95% CI: 0.77(0.65, 0.83) Summary for scale: Mean=28.6949 Std.Dv.=4.52440

Valid N:118 Standardized alpha: 0.79 Average inter-item corr.: 0.41

4.4.2.4. Reliability Results: Optimism

As per table 7, the Cronbach's alpha coefficient of this scale was .66. As mentioned, though the preferred value is higher than .70, any value higher than .60 is also accepted (M. Kidd, personal communication, October 25th, 2018). Therefore, this subscale is still seen to be reliable. Reversed items are also present in this instance. Reversed items have reverse scoring, meaning that the numerical scoring scale runs in the opposite direction. Reversed items PC20 and PC23 presented item-total correlations below .30, with all other items obtaining values higher than .30. Once again, this could possibly be due to respondents' being confused by the reversed items. However, this score did not affect the overall subscale item-total correlation score, which was higher than .30.

Table 7

Reliability and Item-Total Statistics of the Subscale Optimism

	Mean if Item deleted	Variance if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
PC19	22.82	15.21	.40	.63
PC20	23.86	14.73	.17	.72
PC21	23.23	12.65	.60	.55
PC22	23.32	12.63	.61	.55
PC23	23.79	13.61	.27	.68
PC24	23.36	13.18	.48	.59

Note. Cronbach's alpha and 95% CI: 0.66(0.54, 0.76) Summary for scale: Mean=28.0763
Std.Dv.=4.31288 Valid N:118 Standardized alpha: 0.70 Average inter-item corr.: 0.31

4.4.3. Reliability Analysis: Job Descriptive Index (JDI)

This scale assessed six subscales, namely work (consisting of 18 items), pay (consisting of 9 items), opportunities for promotion (consisting of 9 items), general (consisting of 18 items), supervision (consisting of 18 items) and co-workers (consisting of 18 items). Each of these subscales were subjected to item analysis.

4.4.3.1. Reliability Results: People

As depicted in table 8, the Cronbach's alpha coefficient of this scale was reported to be .85. This was highly satisfactory as it is far above the recommended value of .70. All items presented item-total correlations of above .30, except for Likeable and Unpleasant. Likeable is not a reversed score, but still seemed to score an item-total correlation of below .30. This could mean that respondents could have misunderstood the way the question was asked, or it could have been interpreted vaguely or in an unclear manner. This does not however affect the overall item-total correlation score for the subscale.

Table 8

Reliability and Item-Total statistics of the subscale People

	Mean if Item deleted	Variance if Item deleted	Standard Deviation if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
Stimulating	45.48	31.40	5.60	.51	.84
Boring	45.31	31.98	5.65	.54	.84
Slow	45.58	32.06	5.66	.39	.85
Helpful	45.36	31.96	5.65	.50	.84
Stupid	45.14	34.85	5.90	.37	.85
Responsible	45.44	33.09	5.75	.32	.85
Likeable	45.16	34.88	5.91	.28	.85
Intelligent	45.31	32.72	5.72	.46	.84
Easy to make enemies	45.49	32.39	5.69	.38	.85
Rude	45.38	32.05	5.66	.53	.84
Smart	45.23	33.60	5.80	.42	.84
Lazy	45.44	30.57	5.53	.64	.83
Unpleasant	45.19	34.92	5.91	.23	.85
Supportive	45.33	32.03	5.66	.51	.84
Active	45.36	33.50	5.79	.30	.85
Narrow interests	45.58	30.87	5.56	.54	.84
Frustrating	45.86	28.94	5.38	.67	.83
Stubborn	45.80	30.37	5.51	.51	.84

Note. Cronbach's alpha and 95% CI: 0.85(0.80, 0.89) Summary for scale: Mean=48.0847 Std.Dv.=6.02073 Valid N:118
Standardized alpha: 0.85 Average inter-item corr.: 0.25

4.4.3.2. Reliability Results: General

Table 9 depicts a Cronbach's alpha value of .85, which being higher than .70, shows that this subscale was reliable with regards to what it was testing. All items presented item-total correlations of above .30, except for the items 'worse than most' and 'waste of time'. These were reversed items, this did not however affect the overall item-total correlation score for the subscale, which was higher than .30. Moreover, items 'Acceptable and 'Better than Most' also scored lower than .30 for item-total correlations.

Again, this could mean that respondents could have misunderstood the way the question was asked, or it could have been interpreted vaguely or in an unclear manner.

Table 9

Reliability and Item-Total statistics of the subscale General

	Mean if Item deleted	Variance if Item deleted	Standard Deviation if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
Pleasant	47.66	18.53	4.31	.69	.84
Bad	47.70	18.21	4.27	.67	.84
Great	47.91	17.42	4.17	.57	.84
Waste of time	47.65	19.99	4.47	.26	.85
Good	47.64	19.32	4.40	.52	.84
Undesirable	47.65	19.73	4.44	.38	.85
Worthwhile	47.75	18.27	4.27	.55	.84
Worse than most	47.66	20.21	4.50	.10	.86
Acceptable	47.66	19.79	4.45	.22	.85
Superior	48.32	17.51	4.18	.34	.86
Better than most	47.73	19.33	4.40	.25	.85
Disagreeable	47.78	18.88	4.35	.34	.85
Makes me content	47.93	17.01	4.12	.59	.84
Inadequate	47.78	17.76	4.21	.60	.84
Excellent	47.95	16.62	4.08	.65	.83
Rotten	47.63	19.60	4.43	.51	.85
Enjoyable	47.74	17.74	4.21	.74	.83
Poor	47.68	18.36	4.28	.71	.84

Note. Cronbach's alpha and 95% CI: 0.85(0.76, 0.89) Summary for scale: Mean=50.5776 Std.Dv.=4.56290 Valid N:116 Standardized alpha: 0.87 Average inter-item corr.: 0.29

4.4.3.3. Reliability Results: Work

As per table 10, the Cronbach's alpha coefficient of this scale was reported to be .86. This was highly satisfactory, as it is above the recommended value of .70. All items presented item-total correlations of above .30, except for the item 'simple'. This score did not affect the overall item-total correlation score for the subscale.

Table 10

Reliability and Item-Total statistics of the subscale Work

	Mean if Item deleted	Variance if Item deleted	Standard Deviation if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
Fascinating	43.58	37.61	6.13	.53	.85
Routine	44.48	38.52	6.21	.33	.86
Satisfying	43.46	37.43	6.12	.63	.84
Boring 2	43.29	39.04	6.25	.58	.85
Good 2	43.21	40.54	6.37	.51	.85
Gives sense of accomplishment	43.41	37.99	6.16	.58	.84
Respected	43.41	40.22	6.34	.29	.86
Exciting	43.48	36.52	6.04	.70	.84
Rewarding	43.55	37.14	6.09	.63	.84
Useful	43.26	41.32	6.43	.32	.85
Challenging	43.43	38.09	6.17	.52	.85
Simple	43.91	39.04	6.25	.25	.86
Repetitive	44.42	37.08	6.09	.45	.85
Creative	43.92	36.52	6.04	.50	.85
Dull	43.38	38.05	6.17	.58	.84
Uninteresting	43.21	41.21	6.42	.39	.85
Can see results	43.30	39.92	6.32	.51	.85
Uses my abilities	43.33	39.90	6.32	.43	.85

Note. Cronbach's alpha and 95% CI: 0.86(0.79, 0.89) Summary for scale: Mean=46.1197 Std.Dv.=6.58520 Valid N:117
Standardized alpha: 0.87 Average inter-item corr.: 0.29

4.4.3.4. Reliability Results: Pay

Table 11 shows that the Cronbach's alpha coefficient of this scale was reported to be .87. This was highly satisfactory as it is above the recommended value of .70. All items presented item-total correlations of above .30. Therefore, the results of the item analysis did not raise any concerns.

Table 11

Reliability and Item-Total statistics of the subscale Pay

	Mean if Item deleted	Variance if Item deleted	Standard Deviation if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
Income adequate for normal expenses	18.21	23.06	4.80	.60	.86
Fair	17.96	24.70	4.97	.51	.87
Barely live on income	18.18	23.99	4.90	.48	.87
Bad 2	17.64	26.08	5.11	.47	.87
Comfortable	18.33	22.22	4.71	.66	.85
Less than I deserve	18.26	23.55	4.85	.56	.86
Well paid	18.43	22.57	4.75	.72	.85
Enough to live on	18.08	22.57	4.75	.73	.85
Underpaid	18.16	22.14	4.70	.76	.84

Note. Cronbach's alpha and 95% CI: 0.87(0.84, 0.90) Summary for scale: Mean=20.4052 Std.Dv.=5.42615 Valid N:116 (Spreadsheet in results.stw) Standardized alpha: 0.87 Average inter-item corr.: 0.44

4.4.3.5. Reliability Results: Promotion

Table 12 shows that the Cronbach's alpha of this scale was reported to be .91. This was highly satisfactory as it is far above the recommended value of .70. All items presented item-total correlations of above .30. No items were flagged as poor and therefore no items were deleted. The results of the item analysis did not raise any concerns.

Table 12

Reliability and Item-Total statistics of the subscale Promotion

	Mean if Item deleted	Variance if Item deleted	Standard Deviation if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
Good opportunities for promotion	17.44	25.55	5.05	.82	.89
Opportunities somewhat limited	17.77	27.41	5.24	.57	.91
Promotion on ability	17.32	27.61	5.25	.59	.90
Dead-end job	17.01	27.99	5.29	.67	.90
Good chance for promotion	17.39	25.61	5.06	.86	.88
Very limited	17.34	26.61	5.16	.68	.90
Infrequent promotions	17.23	27.84	5.28	.64	.90
Regular promotions	17.44	26.94	5.19	.68	.90
Fairly good chance for promotion	17.43	27.15	5.21	.68	.90

Note. Cronbach's alpha and 95% CI: 0.91(0.88, 0.93) Summary for scale: Mean=19.5478 Std.Dv.=5.83433 Valid N:115 Standardized alpha: 0.91 Average inter-item corr.: 0.53

4.4.3.6. Reliability Results: Supervision

As depicted by table 13, the Cronbach's alpha coefficient of this scale was reported to be .87. This was satisfactory, as it was far above the recommended value of .70. All items presented item-total correlations of above .30. No items were flagged as poor, and therefore no items were deleted. The results of the item analysis did not raise any concerns.

Table 13

Reliability and Item-Total statistics of the subscale Supervision

	Mean if Item deleted	Variance if Item deleted	Standard Deviation if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
Supportive 2	46.81	28.78	5.37	.61	.86
Hard to please	47.06	27.95	5.29	.43	.87
Impolite	46.79	29.37	5.42	.57	.87
Praises good work	46.91	29.03	5.39	.44	.87
Tactful	47.05	27.51	5.24	.56	.86
Influential	47.18	26.13	5.11	.63	.86
Up-to-date	46.95	28.84	5.37	.47	.87
Unkind	46.75	30.22	5.50	.51	.87
Has favourites	47.22	28.27	5.32	.35	.88
Tells me where I stand	47.14	28.07	5.30	.42	.87
Annoying	46.90	28.16	5.31	.55	.86
Stubborn 2	46.95	27.44	5.24	.61	.86
Knows job well	46.97	27.98	5.29	.51	.87
Bad 3	46.77	29.62	5.44	.59	.87
Intelligent 2	46.81	28.68	5.36	.72	.86
Poor planner	46.94	28.77	5.36	.49	.87
Around when needed	46.98	28.37	5.33	.49	.87
Lazy 2	46.80	29.84	5.46	.43	.87

Note. Cronbach's alpha and 95% CI: 0.87(0.82, 0.90) Summary for scale: Mean=49.7034 Std.Dv.=5.65581 Valid N:118
Standardized alpha: 0.89 Average inter-item corr.: 0.33

4.4.4. Summary of the Item Analysis Results

The results of the item analysis performed on the various instruments and their subscales are summarised in tables 14, 15 and 16. It is clear from this summary that all Cronbach's alpha values exceeded the .60 cut-off stipulated. It can also be concluded that, although some of the items in each subscale did not meet the preferred .30 item-total correlation score, there was no impact on the subscales' overall item-total correlation scores. All subscales in the summary show a

satisfactory item-total correlation score.

Table 14

Summary of the item analysis results for UWES

	Mean if Item deleted	Variance if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
WE_vigor	8.83	2.13	.87	.85
WE_dedication	8.66	1.99	.86	.86
WE_absorption	9.06	2.82	.82	.91

Note. Cronbach's alpha and 95% CI: 0.92(0.89, 0.94) Summary for scale: Mean=13.2794 Std.Dv.=2.24421 Valid N:118 Standardized alpha: 0.92 Average inter-item corr.: 0.81

Overall, the results show that the Cronbach's Alpha coefficient for the UWES instrument was a satisfactory .92. Furthermore, it was pleasing to note that the item-total scores were also higher than .30 for each subscale, which indicates that the instrument showed a high reliability.

Table 15

Summary of the item analysis results for PCQ

	Mean if Item deleted	Variance if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
PsyCap_Self-efficacy	14.18	4.24	.76	.86
PsyCap_Hope	14.22	4.35	.77	.85
PsyCap_Resilience	14.16	4.78	.76	.86
PsyCap_Optimism	14.26	4.95	.75	.86

Note. Cronbach's alpha and 95% CI: 0.89(0.80, 0.93) Summary for scale: Mean=18.9393 Std.Dv.=2.81376 Valid N:118 Standardized alpha: 0.89 Average inter-item corr.: 0.67

The overall Cronbach's Alpha coefficient score for the PCQ was .89. Moreover, the item-total correlation scores for each subscale were also higher than .30. This instrument therefore shows a high level of reliability.

Table 16

Summary of the item analysis results for JDI

	Mean if Item deleted	Variance if Item deleted	Standard Deviation if Item deleted	Item-Total Correlation	Cronbach's Alpha if Item deleted
JDI_People	226.31	784.10	28.00	.57	.71
JDI_general	223.80	843.40	29.04	.57	.72
JDI_Work	228.27	730.71	27.03	.68	.68
JDI_pay	233.55	651.91	25.53	.45	.75
JDI_promotion	235.36	621.28	24.93	.45	.76
JDI_Supervision	224.69	796.77	28.23	.58	.71

Note. Cronbach's alpha and 95% CI: 0.75(0.66, 0.81) Summary for scale: Mean=274.398 Std.Dv.=31.9578 Valid N:118 Standardized alpha: 0.81 Average inter-item corr.: 0.43

Lastly, the JDI also shows a satisfactory Cronbach's Alpha coefficient score of .75. The item-total correlation scores for each subscale exceeded the necessary .30, showing that this instrument too has a high level of reliability.

4.5. Reported Prevalence for the Total Sample

To estimate the prevalence of the effects of psychological capital and job satisfaction on work engagement within Meridian Holdings, a statistical analysis was conducted. Below, the prevalence of certain responses provided by the sample group are presented.

4.5.1. Prevalence of Work Engagement Based on the UWES

Of the total sample (n=118), the minimum (lowest) score individuals chose for their feelings of work engagement at work was 2 (rarely), and the maximum (highest) score individuals chose for their feelings of work engagement at work was 6 (always). Most respondents chose the score of 4 (often) for their feelings of work engagement at work (mean = 4.42). The results indicate that 50% of respondents scored between 4 (often) and 5 (very often). This indicates that

generally, high levels of work engagement are experienced by employees at the holdings institute. This is depicted in figure 14.

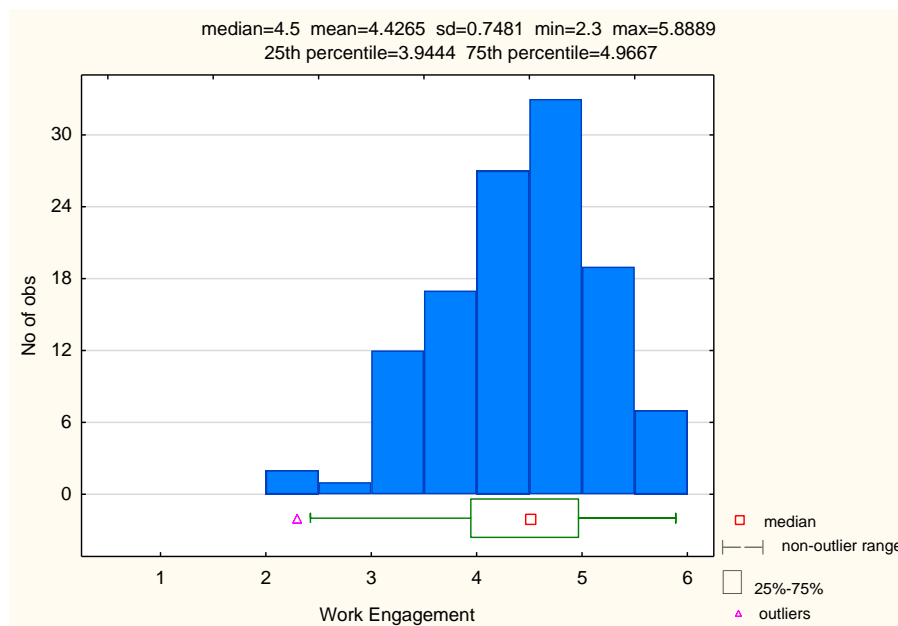


Figure 14. A Histogram showing the prevalence of Work Engagement based on the UWES

4.5.2. Prevalence of Psychological Capital Based on the PCQ

Of the total sample (n=118), the minimum score individuals chose for positive statements toward themselves was 2 (disagreeing with positive statements), and the maximum score individuals chose for positive statements toward themselves was 6 (strongly agree with positive statements of themselves). Most respondents chose a score of 5 (agreeing with positive statements) (mean = 4.73). The results indicate that 50% of respondents scored between 4 (somewhat agree with positive statements of self) and 6 (strongly agree with positive statements of self). Thus, employees at the holdings institute generally think highly of their capabilities in the workspace. This is depicted in figure 15.

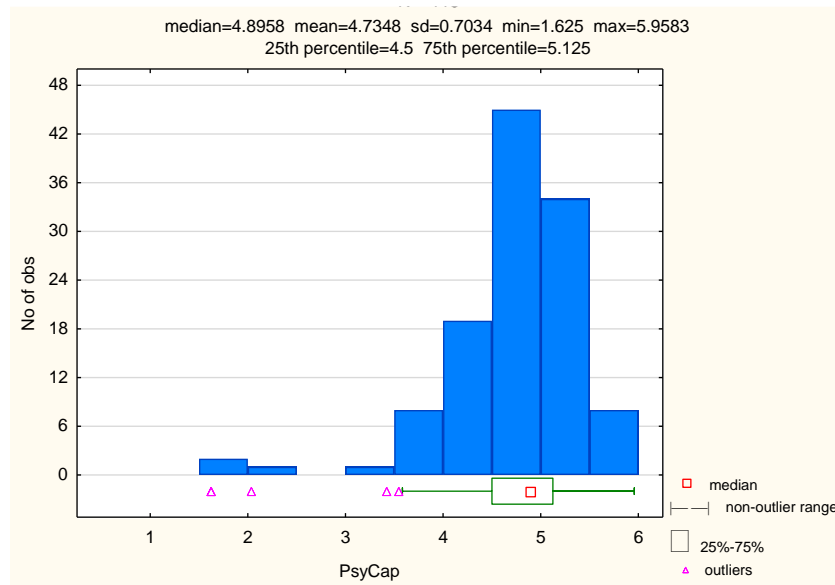


Figure 15. A Histogram showing the prevalence of Psychological Capital based on the PCQ

4.5.3. Prevalence of Job Satisfaction Based on the JDI

Of the total sample (n=118), the minimum score individuals chose for statements toward themselves was 0, and the maximum score individuals chose for positive statements toward themselves was 3. The approximate mean of 3 indicates an average level of satisfaction (mean = 2.74). It is therefore evident that employees enjoy above average satisfaction within their jobs.

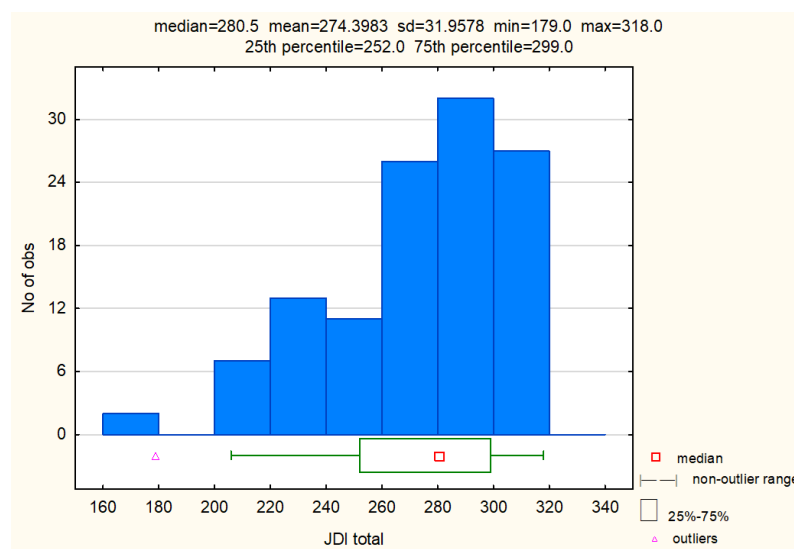


Figure 16. A Histogram showing the prevalence of job satisfaction based on the JDI

The results further support this by indicating that 50% of respondents scored between 2 and 3 (25th percentile = 2.52; 75th percentile = 2.99). Thus, employee satisfaction within Meridian Holdings is generally suitable, as depicted in figure 16.

4.6. The Correlation Between the Different Variables

In terms of correlational analysis, focus is put on the Pearson value. The Pearson correlation coefficient is used to find the degree of association between certain variables (Cramer & Howitt, 2004). If the Pearson p-value is less than or equal to .05, one can conclude that there is a statistically significant correlation between the two variables. This means that increases or decreases in one variable do significantly relate to increases or decreases in the other variable measured.

4.6.1. Correlation between Job Satisfaction and Work Engagement

As per table 17, all points have a Pearson p-value of .05 or lower, except for 9, 11,12,14-21 and 23. It can therefore be concluded that there is a statistically significant correlation between the variables in JDI and WE. Furthermore, as the Pearson value is negative, it can also be concluded that the correlation between the two variables' subscales is negative. Thus, individuals who scored high on one variable scored lower on the other variable. Due to the negative correlation ($p < .05$), the null hypothesis can be rejected for these points. This resulting correlation is the opposite of the anticipated positive effect.

Moreover, as point 9, 11,12,14-21 and 23 have Pearson p-values higher than .05 ($p > .05$), there were no correlations between these variable subscales, and thus no relationship exists between them.

Contrary to literature, this paper concluded a negative correlation between these two variables. It can therefore be suggested that certain changes might need to be made for future studies. Firstly, a different instrument could be used to measure job satisfaction that might harbour better results. Alternatively, another possible change that could be considered is using a bigger sample group to gain a better pool of results.

Table 17

Correlation between JDI and WE

	variable 1	variable 2	Pearson	Pearson p-value	# cases
1	JDI_People	WE_vigor	- .21	.02	118
2	JDI_People	WE_dedication	- .25	< .01	118
3	JDI_People	WE_absorption	- .20	.03	118
4	JDI_People	Work Engagement	- .24	< .01	118
5	JDI_general	WE_vigor	- .24	< .01	116
6	JDI_general	WE_dedication	- .24	< .01	116
7	JDI_general	WE_absorption	- .22	.02	116
8	JDI_general	Work Engagement	- .24	< .01	116
9	JDI_Work	WE_vigor	- .10	.27	117
10	JDI_Work	WE_dedication	- .18	.05	117
11	JDI_Work	WE_absorption	- .09	.34	117
12	JDI_Work	Work Engagement	- .13	.18	117
13	JDI_pay	WE_vigor	- .20	.04	116
14	JDI_pay	WE_dedication	- .13	.18	116
15	JDI_pay	WE_absorption	- .13	.16	116
16	JDI_pay	Work Engagement	- .15	.10	116
17	JDI_promotion	WE_vigor	- .09	.36	115
18	JDI_promotion	WE_dedication	- .11	.24	115
19	JDI_promotion	WE_absorption	.01	.94	115
20	JDI_promotion	Work Engagement	- .08	.39	115
21	JDI_Supervision	WE_vigor	- .14	.13	118
22	JDI_Supervision	WE_dedication	- .18	.05	118
23	JDI_Supervision	WE_absorption	- .11	.24	118
24	JDI_Supervision	Work Engagement	- .16	.08	118
25	JDI total	WE_vigor	- .24	.01	111
26	JDI total	WE_dedication	- .26	< .01	111
27	JDI total	WE_absorption	- .18	.06	111
28	JDI total	Work Engagement	- .24	.01	111

4.6.2. Correlation between PsyCap and WE

As evident from table 18, all points have a Pearson p-value higher than .05 ($p > .05$). Therefore, it can be concluded that there is no statistically significant correlation between the variable PsyCap and WE. Consequently, there is no

relationship between the two variables, and the null hypothesis is not rejected. Again, this is contrary to literature, therefore a different instrument could be used to measure Psychological capital to harbour better results; or another possible change could be using a bigger sample group to gain a better pool of results.

Table 18

Correlation between PsyCap and WE

	variable 1	variable 2	Pearson	Pearson p-value	# cases
1	PsyCap_Self-efficacy	WE_vigor	.01	.90	118
2	PsyCap_Self-efficacy	WE_dedication	- .08	.40	118
3	PsyCap_Self-efficacy	WE_absorption	- .02	.84	118
4	PsyCap_Self-efficacy	Work Engagement	- .03	.71	118
5	PsyCap_Hope	WE_vigor	- .06	.54	118
6	PsyCap_Hope	WE_dedication	- .12	.18	118
7	PsyCap_Hope	WE_absorption	- .10	.26	118
8	PsyCap_Hope	Work Engagement	- .10	.28	118
9	PsyCap_Resilience	WE_vigor	- .01	.87	118
10	PsyCap_Resilience	WE_dedication	- .11	.23	118
11	PsyCap_Resilience	WE_absorption	- .10	.30	118
12	PsyCap_Resilience	Work Engagement	- .09	.33	118
13	PsyCap_Optimism	WE_vigor	.02	.86	118
14	PsyCap_Optimism	WE_dedication	- .01	.88	118
15	PsyCap_Optimism	WE_absorption	- .04	.67	118
16	PsyCap_Optimism	Work Engagement	.00	.98	118
17	PsyCap	WE_vigor	- .01	.89	118
18	PsyCap	WE_dedication	- .10	.30	118
19	PsyCap	WE_absorption	- .07	.43	118
20	PsyCap	Work Engagement	- .07	.47	118

4.7. Multiple Factor Analysis (MFA)

Multiple factor Analysis was used to analyse several data sets measured in one observation and projects the original data sets to allow for an easy analysis of commonalities and discrepancies. Multiple sets of variables can therefore be analysed (Abdi, Williams & Valentin, 2013). Figure 17 shows a depiction of each

variable by means of arrows. These arrows run in different directions based on whether a correlation between the variables and their subscales exist.

Arrows running in the same direction for each scale show a positive correlation between the subscales. It is evident from the figure that all subscales, for each scale, correlated positively together. JDI subscale arrows are slightly separated from each other compared to other variables, which shows a slightly lesser degree of positive correlation.

Arrows running in opposite directions show a negative correlation between the different scales. This again links with table 18, where negative correlations between JDI and WE were identified. Arrows running perpendicular to each other indicate no correlation between variables. Once again, this was expressed above in table 18. Thus, WE and PsyCap are not correlated.

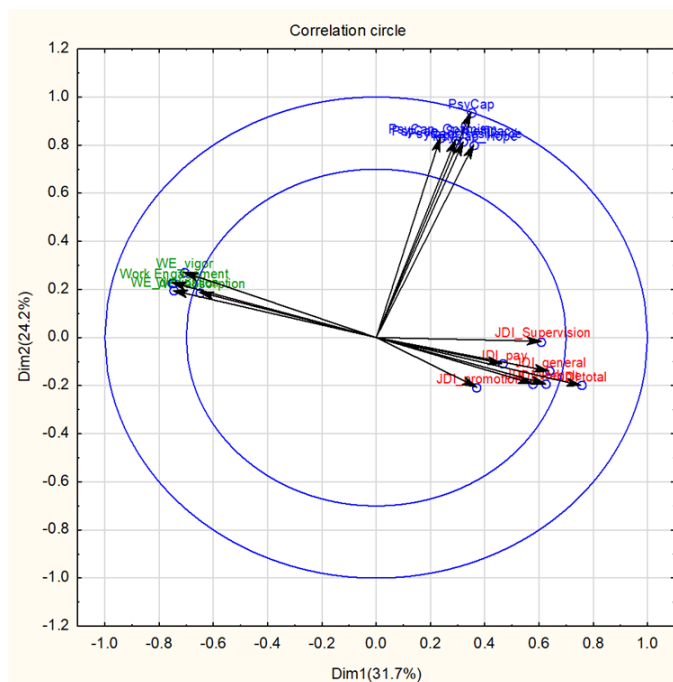


Figure 17. Correlation Circle depicting the correlation between scales and subscales

4.8. Overall Descriptive Statistics for Gender

This analysis was conducted to investigate whether there were differences in work engagement experienced by males and females. ANOVA was the chosen analysis to focus

on due to the fact that two groups were being compared. From a one-way ANOVA, a significant difference ($p=0.02$) was found, with males indicating higher work engagement than females (see figure 18). Thus, a difference was identified, and it can be predicted that based on this study, men are potentially coping better with situational constraints than women (Cilliers, 2010; Siu et al., 2010; Atwater, & Braddy, 2014).

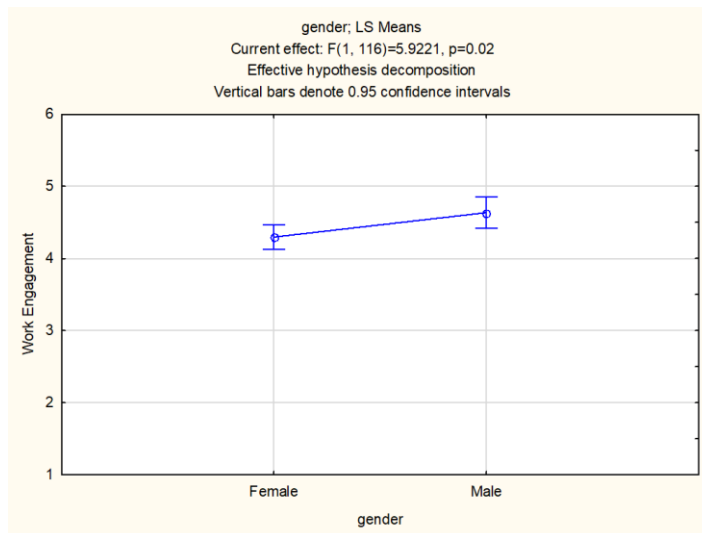


Figure 18. Vertical bar showing the difference identified in work engagement by males and females

4.9. Structural Equations Model (SEM)

Figure 19 depicts a structural equations model SEM. In this model, the subscales were treated as items (manifest variables) for measuring each of the full scales. More specifically, it consists of an outer (measurement) model and an inner (structural) model. The outer model represents the relationship between the items and their specific latent variables, therefore having to do with the measurement of the latent variables and their reliability. The inner model refers to the relationship between the latent variables that were measured using the questionnaires. Therefore, the inner model seeks to explain the variables in the structural model.

The aim of this analysis was to determine the extent to which the latent variables are related, and what the nature of this relationship is. SEM was used to confirm the research study design by providing data in a visual display that is easy to

interpret so that the strength of the relationship between variables within the hypothesis can be investigated. The relationship and the impact of the exogenous latent variables (PsyCap and Job Satisfaction) on the endogenous variable (work engagement) was considered. Discussion of the SEM will be explained in the next paragraph.

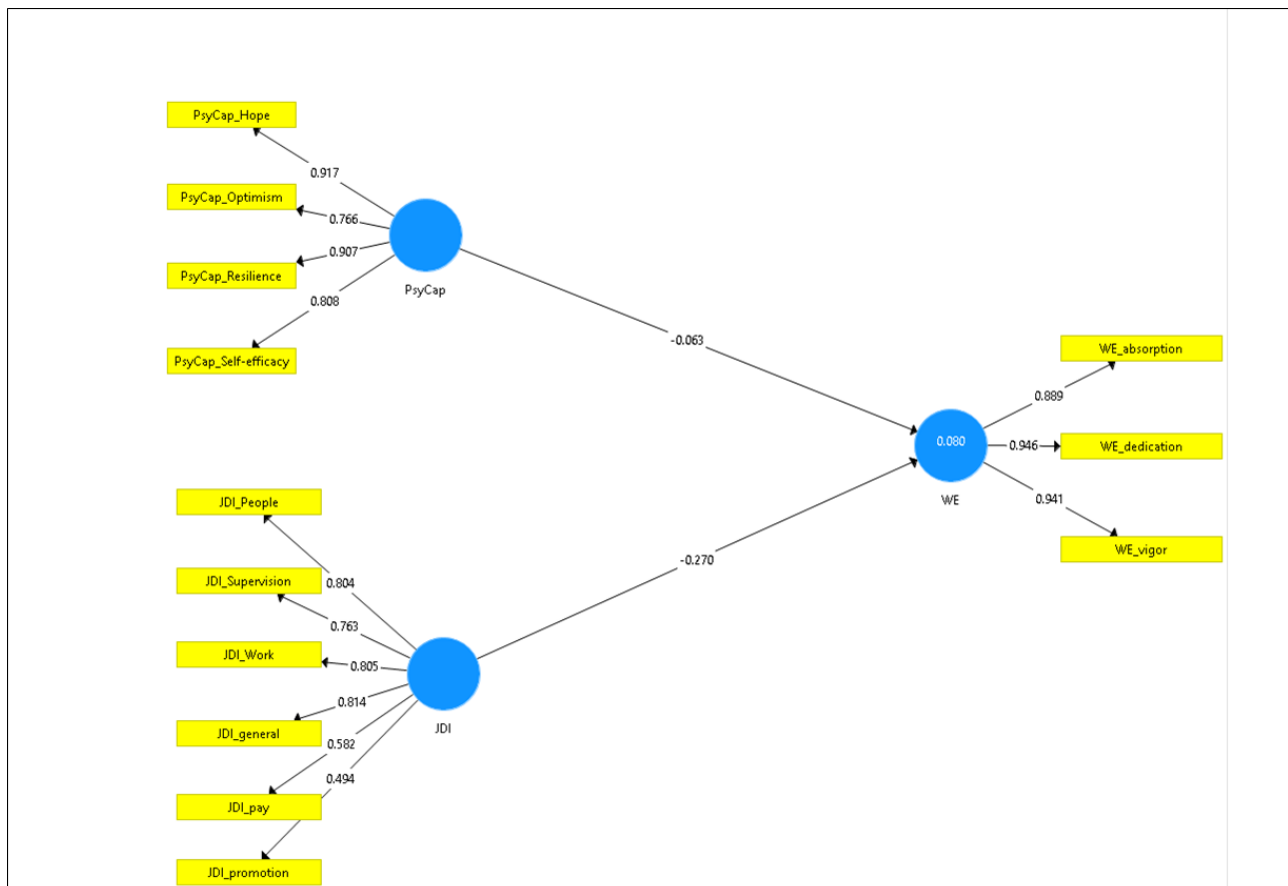


Figure 19. Structural Equation Model (SEM)

4.9.1. Composite Reliability of the Outer Model

In situations where multiple tests are administered, scores from individual tests are frequently combined to produce a composite score. The composite reliability is an indicator of the reliability of the latent variable scales. With this table, scores are acceptable from .70 and above. Similar to the Cronbach's Alpha

coefficient, this shows that the scale is reliable. From Table 19, it is evident that all scales are shown to be reliable in the outer model.

Table 19

Composite reliability (CR)

	CR	95% lower	95% upper
JDI	.86	.72	.89
PsyCap	.91	.05	.95
WE	.95	.93	.96

4.9.2. Average Variance Extracted in Items of the Outer Model

Table 20 depicts how much of the average variance explained in the items are explained by the latent variable. The expected score is above .50. It is evident that values for all the different scales are all above .50.

Table 20:

Average variance (AVE) in each item

	AVE	95% lower	95% upper
JDI	.52	.34	.59
PsyCap	.73	.10	.82
WE	.86	.81	.89

4.9.3. Discriminant Validity of Outer Model

Discriminant validity is used to compare the measures with one another, and to determine whether the data supports the latent variables being separate entities. This is evaluated using the heterotrait-monotrait ratio, which is the ratio within item correlations and between item correlations. A ratio close to 1 indicates that there is no discrimination between two latent variables. Thus, if the 95% confidence interval contains the value 1 (i.e. the upper limit is >1), the

two variables can be viewed as failing to discriminate. “No” indicates that there is a strong correlation between the variables, and that there is thus no discriminant validity (M, Kidd, personal communication, October 25th, 2018). From table 21, it is evident that all three latent variables do discriminate from one another.

Table 21

Discriminant Validity

	from	to	<u>Heterotrait-Monotrait ratio</u>			Discriminate
			Ratio	95% lower	95% upper	
PsyCap -> JDI	PsyCap	JDI	.12	.10	.34	yes
WE -> JDI	WE	JDI	.29	.16	.46	yes
WE -> PsyCap	WE	PsyCap	.07	.06	.22	yes

4.9.4. Outer Loadings

Table 22 illustrates the item loadings that indicate the strength of the relationship between the latent variables and the relevant items from the questionnaire used to measure them. It can be concluded that the loadings between all the indicator variables are significant. If the p-value is less than .05 ($p < .05$), all correlations are seen to be highly significant. It is evident from table 22 that all p-values are lower than .05 ($p < .05$). Therefore, correlations are seen as highly significant. The lower bound for the PsyCap 'outer loadings' are very low and, in fact, negative.

Table 22

Outer loading

	manifest variable	Latent variable	Loading	95% lower	95% upper	p-value from T-test
JDI_People <- JDI	JDI_People	JDI	.80	.57	.88	< .01
JDI_Supervision <- JDI	JDI_Supervision	JDI	.76	.46	.85	< .01
JDI_Work <- JDI	JDI_Work	JDI	.80	.51	.89	< .01
JDI_general <- JDI	JDI_general	JDI	.81	.62	.90	< .01
JDI_pay <- JDI	JDI_pay	JDI	.58	.35	.73	< .01
JDI_promotion <- JDI	JDI_promotion	JDI	.49	.05	.70	< .01
PsyCap_Hope <- PsyCap	PsyCap_Hope	PsyCap	.92	-.15	.96	< .01
PsyCap_Optimism <- PsyCap	PsyCap_Optimism	PsyCap	.77	-.04	.95	< .01
PsyCap_Resilience <- PsyCap	PsyCap_Resilience	PsyCap	.91	-.15	.97	< .01
PsyCap_Self-efficacy <- PsyCap	PsyCap_Self-efficacy	PsyCap	.81	-.09	.95	< .01
WE_absorption <- WE	WE_absorption	WE	.89	.81	.94	< .01
WE_dedication <- WE	WE_dedication	WE	.95	.92	.96	< .01
WE_vigor <- WE	WE_vigor	WE	.94	.91	.96	< .01

4.10. Reporting on the Inner Model

The R^2 value represents the amount of variance in the endogenous variable (work engagement) that can be explained by the exogenous variables (psychological capital and job satisfaction). The R^2 for work engagement was .08, which indicates that 8% of variance in work engagement could be explained by the effects of the exogenous latent variables on work engagement. Thus, there was not a very strong relationship between the two latent variables and work engagement.

4.10.1. Multicollinearity

An assumption is made that when regression analysis is conducted, the predictor variables should not be correlated. When the correlation between these variables is high (i.e. multicollinearity), unstable estimates of the regression coefficients could occur. Multicollinearity is tested using the Variance Inflation Factor (VIF), and a VIF larger than 5 ($VIF > 5$) is considered an indication of multicollinearity. In this study, the $VIF = 1.009$, indicating that multicollinearity was not problematic (de Villiers, 2015).

4.10.2. Path Coefficients

When evaluating the strength of the relationships between the latent variables, the path coefficients are used. These path coefficients range between -1.00 and +1.00. A value closer to zero indicates that there may be an absence of a relationship between the latent variables. Table 25 illustrates the path coefficients obtained for the hypothesised relationships. Confidence intervals of 95% were used to determine the significance of the path coefficients (de Villiers, 2015).

When using 95% confidence intervals, the significance of the hypothesised relationships is determined by whether the value zero (0) falls between the upper or lower control limits (de Villiers, 2015). In table 25, only one of the relationships, job satisfaction and work engagement, did not contain zero between the upper and lower control limits. The relationship was therefore statistically significant.

Table 23

Path coefficients of structural model

	from	to	Path coefficient	95% lower	95% upper	Significant from CI	p-value from T-test
JDI -> WE	JDI	WE	- .27	- .43	- .18	yes	< .01
PsyCap -> WE	PsyCap	WE	- .06	- .24	.27	no	.65

CHAPTER 5

RECOMMENDATION, LIMITATIONS AND CONCLUSION

5.1. Introduction to Results

After a detailed discussion on the constructs of psychological capital, job satisfaction, and work engagement throughout chapters 1 and 2, a thorough description of the scales and techniques used to gather the data was given in chapter 3. Chapter 4 explained the results obtained from the data analysis process which lead to this final chapter, reporting on the final findings of the study. Chapter 5 will identify the significance and implications of the findings identified in the previous chapters.

This chapter therefore gives an overview of the findings apparent, subsequent to the data analysis process, in relation to the aim of the research. It further discusses the implications of this research on the working environment, and what challenges were faced during the study which could have resulted in limitations to the study and findings. Lastly, recommendations will be made for future research before concluding.

5.2. Aim of the Study

The initial aim of this study was to identify the effects of psychological capital and job satisfaction on work engagement of support staff at a holding's establishment (Meridian Holdings). The importance of employee work engagement is progressively highlighted in past literature, as it positively effects employee's commitment to the company and contributes to the overall organisational success (Schaufeli et al., 2002).

This study also focused on the difference in work engagement among men and women. Various studies gave different views on the effects thereof, leaving this construct a seemingly complex one to interpret. Thus, this study set out to determine the degree to which gender differences effect the level of work engagement.

Psychological capital and job satisfaction are also essential concepts to focus on when fostering productive employees and maintaining positive organisational growth and stability within an ever-changing global market. Bonner (2016) suggests that employees with positive psychological capital are motivated by existing and growing job demands, which allows for effective work engagement. Therefore, a relationship is also traced between psychological capital and work engagement, given the significant effect psychological capital has on employees' work experience.

Two hypotheses were posited in Chapter 3 and were used to empirically evaluate the suggested relationships. The results of these hypotheses are discussed based on the data analysis presented in Chapter 4.

5.3. Summary of the Findings and Contributions Made

One of the aims of this study was to ensure that the instruments used to assess the constructs, and their relationship with one another, were valid and reliable. It was essential that valid and reliable instruments were used to ensure that the best results were provided. A reliability analysis as well as a correlational analysis were performed. Diagrams were also utilized to show the prevalence statistics for each construct. A Multiple Factor Analysis (MFA) was performed to depict the correlation between scales and sub-scales, and a Structural Equations Model (SEM) portrayed the structural relationship between the measured constructs. It was imperative to explain whether the structural model displayed an acceptable fit on the data.

5.3.1. Conclusions Regarding Reliability Analysis

The reliability coefficients confirmed that the subscales within each of the scales contributed effectively to an internally consistent description of the instrument in question, and therefore showed acceptable reliability. A Cronbach's Alpha coefficient score above .70 indicated levels of reliability across all scales.

If the Cronbach's Alpha coefficient is .70 or above, reliability is considered satisfactory. Reliability values below 0.70 showed that scales were not representing enough reliability (Kerlinger & Lee, 2000; Pallant, 2007). According to Nunnally (1978), only instruments with modest reliability can be used to gather information. Therefore, it is acceptable to use instruments that have a reliability score of .60.

Moreover, item-total correlation was considered within this study, and item-total correlations above .30 were considered to indicate internal consistency. This score indicates the degree to which each item correlates with the total score. Values lower than .30 may indicate that the item is not measuring the specific scale (Pallant, 2007).

It is important to remember that if reliability was not obtained, or items were flagged for failing to measure a specific scale accurately, items were not deleted from this study. The reason for this is that standardised instruments were used. This study therefore

only reported on findings that might have been unsatisfactory to what was expected.

The results obtained from the reliability analysis performed in this study produced an overall satisfactory result according to the abovementioned guidelines. All scales showed good reliability scores that exceeded the recommended value of .70. The results did indicate that not all items within the subscales presented an item-total correlation score above the recommended .30. However, it was concluded that this could possibly be caused by respondents becoming confused with the reversed items. Even though some of the item-total correlation scores were lower than .30, this has no effect on the overall item-correlation scores for each subscale, which was above .30.

Thus, the measurement scales did not raise any concerns, and all measurement instruments could be considered reliable for use in this study. Table 24 shows a summary of the reliability results for all measuring scales, together with the item-total correlation for each.

Table 24

Summary of the reliability and item-total correlation analysis results for the measurement scale

	Item-Total Correlation	Cronbach's Alpha if Item deleted
JDI_People	.63	.76
JDI_general	.62	.77
JDI_Work	.71	.74
JDI_pay	.44	.81
JDI_promotion	.44	.81
JDI_Supervision	.62	.77
PsyCap_Self-efficacy	.76	.86
PsyCap_Hope	.77	.85
PsyCap_Resilience	.76	.86
PsyCap_Optimism	.75	.86
WE_vigor	.87	.85
WE_dedication	.86	.86
WE_absorption	.82	.91

5.3.2. Model Fit (conclusions regarding measurement models)

To determine the extent to which the indicator variables operationalise the latent variables, a measurement model fit was analysed. A measurement model fit refers to the extent to which a measurement model is consistent with, or describes, the data and provides information about the validity and reliability of the observed indicators (Diamantopoulos & Siguaw, 2000). The data obtained from the measuring instruments were analysed by means of Structural Equation Modelling (SEM). It was decided that the measurement model fit would be analysed separately for each scale and subscales of the measuring instruments, using confirmatory factor analysis.

The results were evaluated after confirmatory factor analysis was conducted per scale. The p-value Test of Close Fit was applied, where $p > .05$ indicated good model fit, and any scores lower than .05 indicated a bad model fit (Diamantopoulos & Siguaw, 2000). Subscale items which produced a poor fit with the data were not regarded. In this study,

all loadings were seen to be higher than .05, therefore scales did not have to be refined, as fit was sufficient.

5.3.3. Evaluation of Structural Model

After identifying that each of the instruments used were considered to be construct valid and internally reliable, the data obtained was analysed further in order to test the absolute fit of the structural model and the direct effects between the latent variables. The data was also analysed to determine the significance of the hypothesis's paths in the model. The research objective of this model was to explain the effects of psychological capital and job satisfaction on work engagement of support staff at a holding's establishment (Meridian Holdings). The statistical technique of Structural Equation Modelling (SEM) was used to examine the effects between the latent variables represented through the structural model.

5.3.3.1. The Effects of Psychological Capital on Work Engagement

The null hypothesis stipulated that variances in work engagement cannot be explained by psychological capital and job satisfaction among support staff at a Holdings establishment. This study found that there is no statistically significant correlation between the variable PsyCap and WE. Therefore, there is no relationship between the two variables, the null hypothesis is not rejected.

When the structural model was subjected to SEM, the path was found to be insignificant in the model. Consequently, it could be concluded that the relationship between psychological capital and work engagement was not confirmed through statistical techniques. The insignificant relationship found between these two variables is not reflected in the literature, and these findings therefore do not support various researchers' views on this relationship. The fact that psychological capital was not seen to have an effect may support the assumption that an employee does not necessarily need to have high levels of psychological capital to feel engaged at work.

5.3.3.2. The Relationship between Job Satisfaction and Work Engagement

A significant relationship was hypothesized to exist between job satisfaction and work engagement. The SEM results revealed a significant path coefficient between these two constructs, which lead to the rejection of the null hypothesis. Consequently, it can be concluded that a negative relationship between job satisfaction and work engagement was identified through statistical analysis.

The relationship between job satisfaction and work engagement was reported in literature by several studies (Buckley, 2011). Work engagement is present when an employee is fully committed to their work and is energized by their job (Albrecht, 2013). This study however revealed that employees within Meridian Holdings are not only engaged when their work environment presents a satisfying atmosphere.

That being said, it can be suggested that certain changes might need to be made for future studies. Firstly, a different instrument could be used to measure job satisfaction that might harbour better results. Alternatively, another possible change that could be considered is using a bigger sample group to gain a better pool of results.

5.3.3.3. The Relationship between Gender and Work Engagement

As mentioned previously, several studies have explored the effects of gender on work engagement. While some research stipulates that females show higher levels of work engagement (Sturm et al., 2014), other research indicates that men score significantly higher (Mache et al., 2014). In this study a significant difference was found, indicating higher levels of work engagement in males. It is possible that men scored higher due to the fact that they portray more strength and toughness than they do an emotional side within certain working environments, and are therefore able to withstand or portray a sense of coping better than women (Mache et al., 2014).

5.4. Limitations of Study and Suggestions for Future Research

Although this study provides valuable insight in to the important constructs of psychological capital, job satisfaction and work engagement, some limitations need to be considered for the purpose of providing information on future studies that can be extended and improved. The first limitation of this study concerns the aspect of confidentiality. Job satisfaction and work engagement were seen to be sensitive topics

based on the questions asked in the questionnaire, particularly with regards to the relationship between leaders and followers in a working context. Although this study was a low risk study, it was found in some instances that variance in data was limited. This could indicate that participants were worried about the confidentiality of the responses, even though confidentiality was ensured. It was clearly communicated that all results obtained would not be available to anyone outside of the study, nor would it be possible to trace responses to respective individuals. Nonetheless, respondents may have felt inclined to provide the most positive answers. It could be suggested that future research provide measurement tools that allowed participants to feel more comfortable and confident about revealing certain information.

Secondly, this study was guided by employees' perceptions of their working environment and their confidence to perform as effectively as possible within the working context. Therefore, it was related to their own outcomes and was a single source study, where attention was not given to other sources. This could include assessments done on management separately, to examine the varying views on the organisational context, and the ability to perform based on the environment and the individual's self-belief. This could however present complications, as management could have a biased view of these components.

The constructs in this study were examined to capture the core relationship between psychological capital, job satisfaction and work engagement. There is an attempt to explain the relationship between these variables in order to gain a better understanding of the link between employees' productivity and their working environment. Although these constructs are widely defined and researched, it is impossible to determine their exact impact. This presents a third limitation, as studies could explore other mediating and moderating variables that would better explain the relationship and effects between psychological capital, job satisfaction and work engagement.

A fourth limitation is linked to the third, in that the structural model might have been more effective if it had excluded other significant constructs in the process of investigation. The purpose of this paper was restricted to a focus on the constructs of psychological capital, job satisfaction and work engagement, which represent the core elements. However, there may be other variables which influence employee work engagement that were not investigated here, and therefore might be built on by future studies.

Fifthly, the sampling method used could have created some restriction. In this particular study, non-probability sampling was used. This method may have reduced the ability to generalise the results of the study. The reason for this is that the questionnaire was sent to respondents using a link sent out to various employees, on behalf of the researcher through the HR department. The researcher was therefore not in control of how many employees the link was sent to, influencing the participation rate. A suggestion would therefore be that when selecting respondents, instead of choosing a convenience sample, a sample should be chosen on the basis of great probability. This will ensure that the sample is more representative of the general organisational population.

The last limitation would be the statistical procedure that was used. Ideally, if undesirable scores were achieved during the statistical analysis of the data set, it would be beneficial to have subjected the data to a second factor analysis to identify whether results were more reliable once problem items were removed. It is recommended that in order to validate results, a second round of factor analysis should be mandatory, to determine whether the structural model still fits.

5.5. Contributions

Due to the fact that this study's scope was vast, the management is left with implications. In the constantly changing working environment, the need for employees to easily adapt and effectively work within these changing circumstances has become a growing interest, particularly with regards to work engagement and the effects thereof.

It is essential to create an environment where employees feel valued and safe. This allows employees to be committed and fully engaged in their work. Work engagement is an important construct, and as mentioned in previous chapters, disengaged employees can create unnecessary organisational costs (Sturm et al., 2014).

The present framework provided regarding work engagement, and its relationship with psychological capital and job satisfaction, has helped identify and promote certain practices regarding employee well-being and productivity within the organisation. Managers can now put certain mechanisms in place to promote effective work engagement.

An important place to start would be to measure work engagement and its drivers amongst all employees within the organisation. Interventions can then be created with

the aim of developing positive engagement at an individual and organisational level (Bakker & Demerouti, 2008).

Some practical methods management could use include motivational resources such as support and recognition programmes by colleagues and supervisors. Good performance feedback could also be used in the performance process, with more focus falling on work engagement. Employees can be made aware of their performance as well as where improvement might be required. This could create higher levels of engagement where employees feel comfortable engaging with management on issues or concerns. Increased opportunities for learning and development are encouraged in this type of environment (Gruman & Saks, 2011).

The results of this study do not necessarily show a strong link between work engagement and employees' psychological capital. However, several studies have indicated that work engagement is likely to increase when individuals are satisfied with their working context and their ability within the working environment. Management could therefore still glean a great deal from the literature on implementing a variety of organisational programmes to strengthen work engagement. These practical means could include promotion of an open information sharing platform to develop and empower employees, development of performance criteria that reward employee behaviour and hard work allowance for effective learning and develop programmes to give employee's the opportunity for promotion, and facilitation of fair solutions to problems (Yukl, 2010).

5.6. Conclusion

The data obtained from the sample group, and the results provided from the statistical analysis, provided some important outcomes of the study at hand. The purpose of this chapter was to interpret these findings in the best way possible, and provide a sufficient explanation and understanding thereof. A significant negative relationship was found to exist between the variables job satisfaction and work engagement.

These results contribute to a meaningful learning experience, as the findings were contrary to literature found. However, the results provided insight into the strength and direction of the relationships between these particular constructs, based on the Meridian Holdings context. In practice, this offered awareness on certain downfalls and

managerial implications that need to be considered. These challenges further allowed the researcher to consider other influencing factors, and the positive effects of interventions on increasing work engagement.

More focus is now been placed on work engagement within an organisational setting, in order to meet the demands that come with a constantly changing working environment. Many companies have dealt with unexpected costs and repercussions that come with the lack of employee productivity. However, this study has confirmed that psychological capital and job satisfaction are not necessarily the only influencing factors of work engagement. Organisations should ensure that work engagement is promoted and is constantly kept at a productive level by strengthening this component.

REFERENCE LIST

- Abdi, H., Williams, L. J., & Valentin, D. (2013). Multiple factor analysis: Principle component analysis for multitable and multiblock data sets. *Wiley Periodicals, Inc, 10*, 1-31.
- Al-Zoubi, M.T. (2012). The shape of the relationship between salary and job satisfaction: A field study. *Far East Journal of Psychology and Business, 7*(3), 1-12.
- Adil, A., & Kamal, A. (2016). Impact of psychological capital and authentic leadership on work engagement and job-related affective well-being. *Pakistan Journal of Psychological Research 31*(1), 1-21.
- Albrecht, N. (2014). Wellness: A conceptual framework for school-based mindfulness programs. *International Journal of Health, Wellness & Society, 4*(1), 21-36.
- Albrecht, S.L. (2013). *Work engagement and the positive power of meaningful work, in advances in positive organisational psychology*. Bingley: Emerald Group Publishing.
- Allen, R.S., & Helms, M.M. (2011). Reward practices and organisational performance. *Compensation and Benefits Review, 33*(4), 74-80.
- Armstrong, M., & Brown, D. (2009). *Strategic rewards: Implementing more effective reward management*. London, UK: Kogan Page.
- Avey, J.B., Nimnicht, J.L., & Pigeopn, N.G. (2010). Two field studies examining the association between positive psychology capital and employee performance. *Leadership & Organisation Development Journal, 31*(5), 384-401.

- Avey, J.B., Wernsing, T.S., & Luthans, F. (2008). Can positive employees help positive organisational change? Impact of psychological capital and emotions on relevant attitudes and behaviours. *The Journal of Applied Behavioural Science*, 44(1), 48-70.
- Avolio, B.J., & Gardner, W.L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, 16, 315-338.
- Bakker, A.B. (2011). An evidence-based model of work engagement. *Current Directions in Psychological Science*, 20(4), 265-269.
- Bakker, A.B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209-223, Retrieved 14 April, 2017, from <http://dx.doi.org/10.1108/13620430810870476>
- Bakker, A.B., Schaufeli, W.B., Leiter, M.P., & Taris, T.W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work and Stress*, 22(3), Retrieved 14 April, 2017, from <http://dx.doi.org/10.1080/02678370802393649>
- Bakker, A.B., Tims, M., & Derks, D. (2012). Proactive personality and job performance: The role of job crafting and work engagement. *Human Relations*, 65(10), 1359-1378.
- Bako, A.A. (n.d.). The positive and negative effects of job satisfaction on employee's performance in an organisation. *Australian Journal of Commerce Study*. Retrieved December 28, 2017 from www.academia.edu/9617953/The_Positive_and_Negative_Effect_of_Job_satisfaction_on_Employee_s_Performance_in_an_Organisation.
- Banihani, M., Lewis, P., & Syed, J. (2013). Is work engagement gendered? *Gender in Management: An International Journal*, 28(7), 400-423.

- Barkhuizen, N., & Rothmann, S. (2006). Work engagement of academic staff in South African higher education institutions. *Management Dynamics*, 15, 38-46.
- Barney, J. (1991). Firm resources and competitive advantage. *Journal of Management*, 17, 99-120.
- Baumgardner, S.R., & Crothers, M.K., (2010). *Positive psychology*. New Jersey: Pearson Education.
- Bezuidenhout, A., & Cilliers, F.V.N. (2010). Burnout, work engagement and sense of coherence in female academics in higher education institutions in South Africa. *SA Journal of Industrial Psychology*, 36(1), 1-10.
- Bindl, U., & Parker, S.K. (2011). *Feeling good and performing well? Psychological engagement and positive behaviours at work*. Cheltenham: Edward Elgar.
- Blau, P.M. (1964). *Exchange and power in social life*. New York: John Wiley.
- Bledow, R., Schmitt, A., Frese, M., & Kühnel, J. (2011). The affective shift model of work engagement. *Journal of Applied Psychology*, 96(6), 1246.
- Bonner, L. (2016). A survey of work engagement and psychological capital levels. *British Journal of Nursing*, 25(15), 865-871.
- Booth, A., Johnson, D.R., & Granger, D.A. (2005). Testosterone, marital quality, and role overload. *J. Marriage Family*, 67, 483–498.
- Bryant, F.B., & Cvengros, J.A. (2004). Distinguishing hope and optimism. *Journal of Social and Clinical Psychology*, 23, 273-302.
- Buckley, F. (2011). Trust and engagement in a downsizing context: The impact on human resource management. In R.H. Searle & D. Skinner (Eds.). *Trust and Human Resource Management* (1st ed., pg. 309-329). United Kingdom: Edward Elgar.

- Caldwin, C., & Hays, L.A. (2011). Leadership, trustworthiness, and the mediating lens. *Journal of Management Development*, 26(3), 261-281.
- Carifio, J., & Rhodes, L. (2002). Construct validities and the empirical relationships between optimism, hope, self-efficacy, and locus of control. *Work*, 19(2), 125-136.
- Cramer, D., & Howitt, D.L. (2004). *The SAGE Dictionary of Statistics: A Practical Resource for Students in Social Sciences*. London: SAGE Publications Ltd.
- Carrim, N., Basson, J., & Coetzee, M. (2006). The relationship between job satisfaction and locus of control in a South African call centre environment. *South African Journal of Labour Relations*, 30(2), 66-81.
- Chaurasia, S., & Shukla, A. (2014). Psychological capital, LMX, employee engagement & work role performance. *The Indian Journal of Industrial Relations*, 50(2), 342-356.
- Chen, J., & Lim, V.K.G. (2012). Strength in adversity: The influence of psychological capital on job search. *Journal of Organisational Behaviour*, 33(6), 811-839.
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64, 89 – 136.
- Collis, J., & Hussey, R. (2002) *Business Research* (2nd ed.). Basingstoke: Palgrave Macmillan.
- Cottini, E., & Lucifora, C. (2013). Mental health and working conditions in Europe. *Industrial & Labour Relations Review*, 66 (4), 958-988.
- Creswell, J.W. (1994). *Research design: Qualitative & quantitative approaches*. London: SAGE Publications.

- Cropanzano, R., & Mitchell, M.S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874-900.
- Dane, E., & Brummel, B.J. (2013). Examining workplace mindfulness and its relations to job performance and turnover intentions. *Human Relations*, 67(1), 105-128.
- De Braine, R., & Roodt, G. (2010). The job demands-resources model as predictor of work identity and work engagement: A comparative analysis. *SA Journal of Industrial Psychology*, 37(2), 1-11.
- Deci, E.L., & Ryan, R.M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, 19, 109-134.
- Demerouti, E., Bakker, A.B., Nachreiner, F., & Schaufeli, W.B. (2000). A model of burnout and life satisfaction among nurses. *Journal of Advanced Nursing*, 32, 454-464.
- De Villiers, M. (2009). *The relationship between employee wellness and career anchors* (master's thesis). Retrieved, 18 July, 2017, from <http://uir.unisa.ac.za/handle/10500/2622>
- de Villiers, C. (2015). *The relationships between emotional labour, the HEXACO personality traits, work engagement and burnout in the hospitality industry*. Unpublished master's thesis, Stellenbosch University, Stellenbosch.
- De Waal, J.J., & Pienaar, J. (2013). Towards understanding causality between work engagement and psychological capital. *SA Journal of Industrial Psychology*, 39(2), Retrieved 14 April, 2017, from <http://dx.doi.org/10.4102/sajip.v39i2.1113>
- Diamantopoulos, A., & Siguaw, J.A. (2000). *Introducing LISREL: A guide for the uninitiated*. London: Sage.

- Donaldson, S.I., & Ko, I. (2010). Positive organisational psychology, behaviour, and scholarship: A review of the emerging literature and evidence base. *The Journal of Positive Psychology*, 5(3), 177-191, Retrieved 18 April, 2017, from <http://dx.doi.org/10.1080/17439761003790930>
- Du Plessis, Y., & Barkhuizen, N. (2011). Psychological capital, a requisite for organisational performance in South Africa. *SAJEMS NS*, 15(1), 16-30.
- Duxbury, L., Higgins, C., & Lyons, S. (2008). *Too much to do, and not enough time: An examination of role overload*. Oxford, UK: Elsevier.
- Emerson, R.M. (1976). Social exchange theory. *Annual Review of Sociology*, 2, 335-362.
- Esha, M., & Renu, R. (2011). Psychological wellbeing of students with type A and type B personalities. *IUP Journal of Organizational Behaviour*, 10(1), 57-74.
- Faber, A., Hansen, K., & Christensen, H. (2006). Muscle strength and aerobic capacity in a representative sample of employees with and without repetitive monotonous work. *Int Arch Occup Environ Health*, 79, 33-41.
- Faragher, E.B., Cass, M., & Cooper, C.L. (2005). The relationship between job satisfaction and health: A meta-analysis. *Occupational and Environmental Medicine*, 62(2), 105-112.
- Faturochman. (1997). The job characteristics theory: A review. *Nomor*, 2, 1-13.
- Field, L.K., & Buitendach, J.H. (2011). Happiness, work engagement and organisational commitment of support staff at a tertiary education institution in South Africa. *SA Journal of Industrial Psychology*, 37(1), 1-10.
- Firth, R. (1967). *Themes in economic anthropology*. London: Tavistock.

- Frankenhaeuser, M. (1981). Coping with stress at work. *International Journal of Health Services*, 11, 491–510.
- Fredrickson, B.L. (1998). What good are positive emotions? *Rev. Gen. Psychology*, 2, 300-319.
- Fredrickson, B.L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218-226.
- Fredrickson, B.L. (2004). The broaden-and-build theory of positive emotions. *The Royal Society*, 1367-1377.
- Fredrickson, B.L., Cohn, M.A., Coffey, K.A., Pek, J., & Finkel, S.M. (2008). Open hearts build lives: Positive emotions, induced through loving-kindness meditation, building consequential personal resources. *Journal of Personality and Social Psychology*, 95(5), 1045-1062.
- Friedman, M.D., & Rosenman, R.H. (1974). *Type A behaviour and your heart*. New York: Knopf.
- Frijda, N.H. (1993). *Moods, Emotion Episodes, and Emotions*. New York, NY: Guilford Press.
- Geldenhuys, M., Taba, K., & Venter, C.M. (2014). Meaningful work, work engagement and organisational commitment. *SA Journal of Industrial Psychology*, 40(1), Retrieved 17 April, 2017, from <http://dx.doi.org/10.4102/sajip.v40i1.1098>
- Gooty, J., Gavin, M., Johnson, P.D., Frazer, M.L., & Snow, D.B. (2009). In the eyes of the beholder: Transformational leadership, positive psychological capital, and performance. *Journal of Leadership & Organisational Studies*, 15(4), 353-367.

- Gouldner, A.W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25, 161-178.
- Gruman, J.A., & Saks, A.M. (2011). Performance management and employee engagement. *Human Resource Management Review*, 21, 123-136.
- Hackman, J.R., & Oldham, G.R. (1980). *Work redesign*. Addison-Wesley: Reading, MA
- Hackman, J.R., & Oldham, G.R. (1981). Relationships between organisational structure and employee reactions: Comparing alternative frameworks. *Administrative Science Quarterly*, 26(1), 66-83.
- Hakanen, J.J. (2002). From burnout to job engagement - validation of the Finnish version of an instrument for measuring job engagement (UWES) in an educational organisation. *Työ Ja Ihminen*, 16, 42-58.
- Hakanen, J.J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behaviour*, 73, 78-91.
- Halbesleben, J.B.R., & Buckley, M.R. (2004). Burnout in organisational life. *Journal of Management*, 30, 859-879.
- Halbesleben, J.R., Neveu, J.P., Paustian-Underdahl, S.C., & Westman, M. (2014). Getting to the "COR": Understanding the role of resources in conservation of resources theory. *Journal of Management*, 40(5), 1334-1364.
- Halbesleben, J.R.B., & Wheeler, A.R. (2008). The relative roles of engagement and embeddedness in predicting job performance and intentions to leave. *Work & Stress*, 22(2), 283-296.
- Haley, L., Mostert, K., & Els, C. (2013). Burnout and work engagement for different age groups: Examining group-level differences and predictors. *Journal of Psychology in Africa*, 23(2), 283-296.

- Hallberg, U.E., & Schaufeli, W.B. (2006). 'Same same' but different? Can work engagement be discriminated from job involvement and organisational commitment? *European Psychologist*, 11(2), 119-127.
- Harmer, R.J., & Findlay, B.M. (2005). The effect of workplace relationships on employee job satisfaction 25 to 35 years old. *Proceedings of Australian Psychology Society*, 76, 103-2112.
- Herzberg, F. (1968). One more time: How do you motivate employees? *Harvard business review*, 46, 53-62.
- Hobfoll, S.E. (2001). Conservation of resource caravans and engagement settings. *Journal of Occupational and Organisational Psychology*, 84(1), 116-122.
- Hobfoll, S.E., Freedy, J., Lane, C., & Geller, P. (1990). Conservation of social resources: Social support resources theory. *Journal of Social and Personal Relations*, 7, 465-478.
- Hogan, R., & Kaiser, R.B. (2005). What we know about leadership. *Review of General Psychology*, 9, 169-180.
- Howitt, D., & Cramer, D. (2006). *Introduction to research methods in psychology (3rd ed.)*. Prentice Hall
- Hyvönen, K., Feldt, T., Salmela-Aro, K., Kinnunen, U., & Mäkikangas, A. (2009). Young managers' drive to thrive: A personal work goal approach to burnout and work engagement. *Journal of Vocational Behaviour*, 75, 183-196.
- Jacobs, S., Renard, M., & Snelgar, R.J. (2014). Intrinsic rewards and work engagement in the South African retail industry. *SA Journal of Industrial Psychology* 40(2), 1-13.
- Janićijević, N., Kovačević, P., & Petrović, I. (2015). Identifying organizational factors of job satisfaction: The case of one servant company. *Economic Annals*, LX (205), 73-103.

- Johnson, R.R. (2012). Police officer job satisfaction: A multidimensional analysis. *Police Quarterly*, 15 (2), 157-158.
- Judge, T.A., & Klinger, R. (2007). Subjective well-being at work. *Subjective Well-being in the Personal Domain*, 19, 393-413.
- Jung, C.G. (1921). *Psychological types. Collected works*, 6, Princeton, NJ: Princeton University Press.
- Kahn, W.A. (1990). Psychological conditions of personal engagement and disagreement at work. *Academy of Management Journal*, 33(4), 692-724.
- Kahn, W.A. (1992). To be fully there: Psychological presence at work. *Human Relations*, 45, 321-349.
- Karatas, Z., & Tagay, O. (2012). Self-esteem, locus of control and multidimensional perfectionism as the predictors of subjective well-being. *International Education Studies*, 5, 131 – 139.
- Keith, T.Z. (2014). *Multiple regression and beyond: An introduction to multiple regression and structural equation modelling*. Routledge.
- Kennedy, K., & Malveaux, J. (2012). How employees are dealing with uncertainty. *United States of America: Society for Human Resource Management (SHRM)*, 1-87.
- Kerlinger, F.N., & Lee, H.B. (2000). *Foundations of behavioural research* (4th ed.). Orlando, FL: Harcourt College Publishers.
- Kothari, C.R. (2004). *Research methodology: Methods and techniques*. United Kingdom: New Age International Publishers.
- Kuratko, D.F., Morris, M.H., & Covin, J.G. (2011). *Corporate innovation & entrepreneurship*. Canada: South-Western Cengage Learning.

- Leedy, P.D. & Ormrod, J.E. (2005). *Practical research: Planning and design* (5th ed.). Pearson Education, Upper Saddle River, New York.
- Leiter, M.P. (1993). Burnout as a developmental process: Consideration of models. Washington, DC: Taylor and Francis, pp. 237-250.
- Lowry, R. (2014). Concepts and applications of inferential statistics. *DOER*, 63, 1-66.
- Lu, C., Hannon, P.A., Laing, S.S., Kohn, M.J., Clark, K., Pritchard, S., & Harris, J.R. (2015). Perceived workplace health support is associated with employee productivity. *American Journal of Health Promotion*, 29 (3), 139- 146.
- Luthans, F. (2002). Positive organisational behaviour: Developing and managing psychological strengths. *Academy of Management Executive*, 16(1), 57-72.
- Luthans, F., Avey, J.B., Avolio, B.J., & Peterson, S.J. (2010). The development and resulting performance impact of positive psychological capital. *Human Resource Development Quarterly*, 21 (1), 41-67.
- Luthans, F., Avolio, B.J., Walumbwa, F.O., & Li, W. (2005). The psychological capital of Chinese workers: Exploring the relationship with performance. *Management and Organisation Review*, 1(2), 249-271.
- Luthans, K.W., & Luthans, B.C. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizons*, 45-50.
- Luthans, F., Luthans, K.W., & Luthans, B.C. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizon*, 47(1), 45-50.
- Luthans, F., Norman, S.M., Avolio, B.J., & Avey, J.B. (2008). The mediating role of psychological capital in the supportive organisational climate-employee performance relationship. *Journal of Organisational Behaviour*, 29, 219-238.

- Luthans, F., van Wyk, R., & Walumba, F.O. (2004). Recognition and development of hope for South African organizational leaders. *Leadership and Organization Development Journal*, 25(6), 512-527.
- Luthans, F., Vogelgesang, G.R., & Lester, P.B. (2006). Developing the psychological capital of resilience. *Human Resource Development Review*, 5(1), 25-44.
- Luthans, F., Youssef, C.M., & Avolio, B.J. (2007). *Psychological capital: Developing the human competitive edge*. New York: Oxford University Press.
- Luthans, F., & Youssef, C.M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organisational Dynamics*, 33(2), 143-160.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131, 803–855.
- Mache, S., Vitzthum, K., Wanke, E., Groneberg, W., Klapp, B.F., & Danzer, G. (2014). Exploring the impact of resilience, self-efficacy, optimism and organizational resources on work engagement. *Work*, 47(4), 491-500.
- Mafini, C., & Dlodlo, N. (2014). The relationship between extrinsic motivation, job satisfaction and life satisfaction amongst employees in a public organisation. *SA Journal of Industrial Psychology*, 40(1).1-13.
- Magaletta, P.R., & Oliver, J.M. (1999). The hope construct, will and ways: Their relations with self-efficacy, optimism and well-being. *Journal of Clinical Psychology*, 55, 539-551.
- Malinowski, P., & Lim, H.J. (2015). Mindfulness at work: Positive affect, hope, and optimism mediate the relationship between dispositional mindfulness, work engagement and well-being. *Mindfulness*, 6(6), 1250-1262.

- Maniram, R. (2012). *An investigation into the factors effecting job satisfaction at the Kwazulu-Natal further education and training college* (Mini Dissertation, UNISA).
- Markova, G., & Ford, C. (2011). Is money the panacea? Rewards for knowledge workers. *International Journal of Productivity and Performance Management*, 60(8), 813-823.
- Maslach, C., Schaufelli, W.B., & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- Maslow, A.H. (1970). *Motivation and personality* (2nd ed.). New York: Harper & Row.
- May, D.R., Gilson, R.L., & Harter, L.M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational & Organisational Psychology*, 77, 11-37.
- Mbebe, M.M. (2005). *Job satisfaction levels of academic and administrative staff at an educational institution*. Unpublished master's thesis, Nelson Mandela Metropolitan University, Port Elizabeth.
- McLeod, S.A. (2007). *Maslow's hierarchy of needs*. Retrieved December, 2017, from www.simplypsychology.org/maslow.html
- Medlin, B., & Faulk, L. (2011). The relationship between optimism and engagement: The impact on student performance. *Research in Higher Education Journal*, 13, 1-9.
- Meijman, T. F., Mulder, G., & Van Dormolen, M. (1992). *Workload of driving examiners: A psychophysiological field study*. In H. Kragt (ed.), *Enhancing industrial performances* (pp. 245–260). London: Taylor & Francis.

- Miner, J.B. (2003). The rated importance, scientific validity, and practical usefulness of organisational behaviour theories: A quantitative review. *Academy of Management Learning & Education*, 2(3), 250-268.
- Motowidlo, S.J., & Borman, W. C. (1993). Expanding the criterion domain to include elements of contextual performance. *Personnel Selection organisations*, 71-98.
- Mottaz, C.J. (1985). The relative importance of intrinsic and extrinsic rewards as determinants of work satisfaction. *The Sociological Quarterly*, 26(3), 365-385.
- Munir, F., Houdmont, J., Clemes, S., Wilson, K., Kerr, R., & Addley, K. (2015). Work engagement and its association with occupational sitting time: Results from Stormont study. *BMC Public Health*, 15(1), 30-45.
- Mustapha, N. (2013). The influence of financial reward on job satisfaction among academic staffs at public universities in Kelantan, Malaysia. *International Journal of Business and Social Science*, 4(3), 244-246.
- Noe, R.A., Hollenbeck, J.R., Gerhart, B., & Wright, P.M. (2000). *Human resource management* (3rd ed.). North America: McGraw Hill.
- Norman, S.M., Avey, J.B., Nimnicht, J.L., & Pigeon, N.G. (2009). The interactive effects of psychological capital and organisational identity on employee organisational citizenship and deviance behaviours. *Journal of Leadership & Organisational Studies*, 1-12.
- Nunnally, J.C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw-Hill.
- Oehley, A.M. (2007). *The development and evaluation of a partial talent management competency model*. Unpublished master's thesis, Stellenbosch University.

- Olivier, A.L., & Rothmann, S. (2007). Antecedents of work engagement in a multinational oil company. *SA Journal of Industrial Psychology*, 33(3), 49-56.
- Oshagbemi, T. (2003). Personal correlates of job satisfaction: Empirical evidence from UK universities. *International Journal of Social Economics*, 30(12), 1210-1232.
- Othman, R., Omar, N., Azam, A., Ibrahim, S., Farouq, W.A., Rustam, N., & Aris, N.A. (2014). Influence of job satisfaction and codes of ethics on integrity among police officers. *Social and Behavioural Sciences*, 145, 266–276.
- Oyserman, D., Sorensen, N., & Reber, R. (2009). Connecting and separating mind-sets: Culture as situated cognition. *Journal of Personality and Social Psychology*, 97(2), 217-289.
- Pallant, J. (2005). *SPSS: Survival manual* (2nd ed.). Open University Press.
- Pallant, J. (2007). *SPSS survival manual: A step-by-step guide to data analysis using SPSS for Windows (Version 15)* (3rd ed.). Australia: Allen & Unwin.
- Parker, S.K. (1998). Enhancing role breadth self-efficacy: The roles of job enrichment and other organisational interventions. *Journal of Applied Psychology*, 83(6), 835-852.
- Parker, S.K., & Griffin, M.A. (2011). Understanding active psychological states: Embedding engagement in a wider nomological net and closer attention to performance. *European Journal of Work and Organisational Psychology*, 20, 60-67.
- Peterson, S.J., Walumbwa, F.O., Byron, K., & Myrowitz, J. (2008). CEO positive psychological traits, transformational leadership, and firm performance in high-technology start-up and established firms. *Journal of Management*, 29(6), 785-803.

- Philippe, F.L., Lecours, S., & Beaulieu-Pelletier, G. (2008). Resilience and positive emotions: Examining the role of emotional memories. *Journal of Personality*, 77(1), 139-175.
- Pienaar, J.W. (2005). *Loopbaandilemmas van akademiese personeel binne 'n veranderende Suid-Afrikaanse hoër –onderwyswerksomgewing* (Doctoral dissertation, University of the Free State). Retrieved December 2017 from EBSCO-host.
- Research Methodology (2006). Unpublished class notes (Industrial Psychology Honours), Stellenbosch University.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organisational support: A review of the literature. *Journal of Applied Psychology*, 87, 698-714.
- Robbins, S.P., & Judge, T.A. (2007). *Organisational behaviour*. New Jersey: Prentice Hall.
- Rothmann, S. (2003). Burnout and engagement: A South African perspective. *South African Journal of Industrial Psychology*, 29(4), 16-25.
- Rothmann, S., & Essenko, N. (2007). Job characteristics, optimism, burnout, and ill health of support staff in a higher education institution in South Africa. *South African Journal of Psychology*, 37(1), 135-152.
- Rothmann, S., & Jordaan, G.M.E. (2006). Job demands, job resources and work engagement of academic staff in South African higher education institutions. *South African Journal of Industrial Psychology*, 32(4), 87-96.
- Rothmann, S., Jorgensen, L.I., & Hill, C. (2011). Coping and work engagement in selected South African organisations. *SA Journal of Industrial Psychology*, 37(1), 1-11.
- Rotter, J.B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monography*, 80, 1 - 28.

- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57(3), 316-331.
- Salanova, M., Agut, S. & Peiro, J.M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediation of service climate. *Journal of Applied Psychology*, 90, 1217-1227.
- Saks, A.M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600-619.
- Schaufeli, W.B., & Bakker, A.B. (2003). *UWES – Utrecht work engagement scale: test manual*. Unpublished manuscript, Department of Psychology, Utrecht University.
- Schaufeli, W.B., & Bakker, A.B. (2004). Job demands, job resources and their relationship with burnout and engagement: A multi sample study. *Journal of Organisational Behaviour*, 25, 293-315.
- Schaufeli, W.B., Bakker, A.B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire. A cross-national study. *Educational and Psychological Measurement*, 66, 701–716.
- Schaufeli, W.B., Bakker, A.B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organisational behaviour*, 30(7), 893-917.
- Schaufeli, W.B., Salanova, M., Gonzalez-Roma, V., & Bakker, A.B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71-92.
- Scheier, M.F., & Carver, C.S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, 4(3), 219.

- Schlechter, A.F. (2007). *The influence of transformational leadership, emotional intelligence, trust, meaning and intention to quit on organizational citizenship behaviour*. Unpublished doctoral thesis, Stellenbosch University.
- Seligman, M.E.P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist Association*, 55(1), 5-14.
- Seppälä, P., Mauno, S., Feldt, T., Hakanen, J., Kinnunen, U., Tolvanen, A., & Schaufeli, W. (2009). The construct validity of the Utrecht Work Engagement Scale: Multi-sample and longitudinal evidence. *Journal of Happiness Studies*, 10(4), 459.
- Setti, I., & Argentero, P. (2014). The role of mindfulness in protecting firefighters from psychosomatic malaise. *Traumatology: An International Journal*, 20(2), 134-141.
- Shimazu, A., Schaufeli, W.B., Kosugi, S., Suzuki, A., Nashiwa, H., & Kato, A. (2008). Work engagement in Japan: Development and validation of the Japanese version of the Utrecht Work Engagement Scale. *Applied Psychology: An International Review*, 57, 510-523.
- Simons, J.C., & Buitendach, J.H. (2013). Psychological capital, work engagement and organisational commitment amongst call centre employees in South Africa. *SA Journal of Industrial Psychology*, 39(2), 1-12.
- Siu, O., Lu, J., Brough, P., Lu, C., Bakker, A.B., Kalliath, T., O'Driscoll, M., Phillips, D.R., Chen, W., Lo D., Sit, C., & Shik, K. (2010). Role of resources and work–family enrichment: The role of work engagement. *Journal of Vocational Behaviour*, 77(3), 470-480.
- Smith, T. W. (2007). Job satisfaction in the United States. (Masters dissertation, University of Chicago). Retrieved June 6, 2018 from [http://www-news.uchicago.edu>releases>pdf](http://www-news.uchicago.edu/releases/pdf)

- Snelgar, R.J., Renard, M., & Venter, D. (2013). An empirical study of the reward preferences of South African employees. *SA Journal of Human Resource Management*, 11(1), 84-97, Retrieved 18 April, 2017, from <http://dx.doi.org/10.4102/sajhrm.v11i1.351>
- Snyder, C.R., Harris, C., Anderson, J.R., Holleran, S.A., Irving, L.M., Sigmon, S.T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality & Social Psychology*, 60(4), 570-585.
- Snyder, C.R., Rand, K.L., & Sigmon, D.R. (2002). Hope theory. *Handbook of Positive Psychology*, 257-276.
- Snyder, C.R., Sympton, S., Ybasco, F., Borders, T., Babyak, M., & Higgins, R. (1996). Development and validation of the state hope scale. *Journal of Personality and Social Psychology*, 70, 321-335.
- Soni, K., & Rastogi, R. (2017). Impact of psychological capital on organizational effectiveness: Role of positive psychology at work. *Journal of Organisation & Human Behaviour*, 6 (1 & 2), 1-9.
- Sonnentag, S. (2003). Work, recovery activities, and individual well-being: A diary study. *Journal of Occupational Health Psychology*, 6, 196–210.
- Spector, P.E. (1996). *Individual and organisational psychology* (2nd ed.). United States of America: John Wiley & Sons, Inc.
- Spector, P.E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. Thousand Oaks, California: Sage.
- Stajkovic, A., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychology Bulletin*, 124, 240-261

- Stangor, C. (2011). *Research methods for the behavioural sciences* (4th ed.). Belmont: Wadsworth Cengage Learning.
- Storm, K., & Rothmann, I. (2003). A psychometric analyst of the Utrecht Work Engagement Scale in the South African police service. *South African Journal of Industrial Psychology*, 29, 62-70.
- Sturm, R.E., Taylor, S.N., Atwater, L.E., & Braddy, P.W. (2014). Leadership self-awareness: An examination and implications of women's under-prediction. *Journal of Organisational Behaviour*, 35, 657-677.
- Sweetman, D., & Luthans, F. (2010). *The power of positive psychology: Psychological capital and work engagement*. Bakker AB: Leiter MP.
- Takawira, N. (2012). *Job embeddedness, work engagement and turnover intention of staff in a higher education institution* (unpublished Master's thesis). University of South Africa, Pretoria.
- Tansey, O. (2007). Process tracing and elite interviewing: A case for non- probability sampling. *Political Science and Politics*, 40(4), 1-23.
- Taylor, S. (2008). *People resources*. (4th ed.). London, UK: Chartered Institute of Personnel and Development.
- Tekell, J.K. (2008). *Affective and cognitive components of job satisfaction: Scale development and initial validation* (Master's thesis, University of North Texas). Retrieved from digital.library.unt.edu/ark:/67531/metadc9024/m2/1/high_res_d/thesis.pdf
- Tshilongamulenzhe, M.C., & Takawira, N. (2015). Examining the gender influence on employees' work engagement within a South African university. *Risk Governance & Control*, 5(2).

- Tongco, M.D.C. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research and Applications*, 5, 147-158.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationship between job characteristics, burnout and engagement: The role of basic psychological need satisfaction. *Work & Stress*, 22, 277-294.
- Wagnild, G.M., & Young, H.M. (1993). Development and psychometric evaluation of the resiliency scale. *Journal of Nursing Management*, 1, 165-178.
- Weick, K. E., & Quinn, R. E. (1999). Organisational change and development. *Annu. Rev. Psychol.*, 50, 361-386.
- Willman, E. A. (n.d.). Alcohol use among law enforcement. *The Journal of Law Enforcement*, 2(3). 1-4.
- Xanthopoulou, D., Bakker, A.B., Demerouti, E., & Schaufeli, W.B. (2009). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behaviour*, 74(3), 235-244.
- Ye, Y., & Lin, L. (2015). Examining relations between locus of control, loneliness, subjective well-being and preference for online social interaction. *Psychol Rep*, 116(1), 165-175.
- Yi-Wen, Z., & Yi-Qun, C. (2005). The Chinese version of the Utrecht Work Engagement Scale: An examination of reliability and validity. *Chinese Journal of Clinical Psychology*, 13, 268-270.
- Youssef, C.M., & Luthans, F. (2007). Positive organisational behaviour in the workplace: The impact of hope, optimism, and resilience. *Journal of Management*, 33(5), 774-800.
- Yukl, G. (2010). *Leadership in organisations*. Upper Saddle River: Pearson

- Zamahani, M., Ghorbani, V., & Rezaei, F. (2011). Impact of authentic leadership and psychological capital on followers' trust and performance. *Australian Journal of Basic and Applied Sciences*, 5(12), 658-667.
- Zhang, P., & Von Dran, G. M. (2000). Satisfies and dissatisfies: A two-factor model for website design and evaluation. *Journal of the American Society for Information Science*, 51(14), 1253-1268

APPENDIX A

Demographic & Work Engagement Questionnaire

This questionnaire contain measures for work engagement and certain demographic variables. It is compiled with reference to existing questionnaires that are known to be valid and reliable.

1. Please indicate your gender: *

- ☐ Male
- ☐ Female

2. Please select your age category: *

- ☐ 18 - 24
- ☐ 25 - 34
- ☐ 35 - 44
- ☐ 45 - 54
- ☐ 55 - 64
- ☐ 65 or above

3. How long have you been working at the company for? *

Enter your answer

4. WORK AND WELL-BEING

The following 17 statements are about how you feel at work. Please read each statement carefully and choose how you feel about your work in relation to the question being asked.

If you have never had this feeling select 0 (zero), if you have had this feeling indicate how often you feel this way by crossing the number (1 - 6) that best describes how frequently you feel this way. *

	Almost never (1)	Rarely (2)	Sometime (3)	Often (4)	Very often (5)	Always (6)
At my work, I feel bursting with energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find the work that i do full of meaning and purpose	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time flies when I am working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At my job, I feel strong and vigorous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am enthusiastic about my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am working, I forget everything else around me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job inspires me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I get up in the morning, I feel like going to work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel happy when I am working intensely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud of the work that I do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am immersed in my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can continue working for very long periods at a time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To me, my job is challenging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get carried away when I am working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At my job, I am very resilient, mentally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

It is difficult to detach myself from my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At my work I always persevere, even when things do not go well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Psychological Capital Questionnaire

This questionnaire contain measures for psychological capital. It is compiled with reference to existing questionnaires that are known to be valid and reliable.

1. Below are statements that describe how you may think about yourself right now. Use the following scale to indicate your level of agreement or disagreement with each statement. *

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
I feel confident analyzing a long-term problem to find a solution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident representing my performance in meetings with management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident contributing to discussions during office meetings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident helping to set targets/goals for myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident contacting people outside the office with more experience to discuss my work problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident presenting information to a group of colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If I should find myself in a jam, I could think of many ways to get out of it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At the present time, I am energetically pursuing my work goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are lots of ways around any problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Right now I see myself as being pretty successful in the work I do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can think of many ways to reach my current career goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At this time, I am meeting the goals that I have set for myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I have a setback at work, I have trouble recovering from it and moving on	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I usually manage difficulties at work one way or another	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If i have to, I can do work on my own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I usually take stressful situations at work in my stride	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can get through difficult times at work because I've experienced difficulty before	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I can handle many things at once at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When things are uncertain to me in terms of work expectation, I still try my best	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If something can go wrong for me at work, it will	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always look on the bright side of things regarding my work progress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm optimistic about what will happen to me in the future as it pertains to my career goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As an employee in this company, things never work out the way I want them to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I approach my work as if "every cloud has a silver lining"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The Job Descriptive Index

This questionnaire contain measures for job satisfaction. It is compiled with reference to existing questionnaires that are known to be valid and reliable.

1. PEOPLE ON YOUR PRESENT JOB

Think of the majority of people with whom you work or meet in connection with your work. How well does each of the following words or phrases describe these people?

In the columns stipulated, choose "YES" if it describes the people with whom you work, choose "NO" if it does not describe them or choose "?" if you cannot decide.

	YES	NO	?
Stimulating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Slow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helpful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stupid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responsible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Likeable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intelligent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Easy to make enemies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rude	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smart	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lazy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unpleasant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supportive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Narrow interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frustrating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stubborn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. JOB IN GENERAL

Think of your job in general. All in all, what is it like most of the time?

In the columns stipulated, choose "YES" if it describes your job, choose "NO" if it does not describe your job or choose "?" if you cannot decide.

	YES	NO	?
Pleasant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Great	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Waste of time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Undesirable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worthwhile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worse than most	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acceptable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Superior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better than most	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disagreeable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Makes me content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inadequate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excellent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rotten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enjoyable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. WORK ON PRESENT JOB

Think of the work you do at present. How well does each of the following words or phrases describe your work?

In the columns stipulated, choose "YES" if it describes your work, choose "NO" if it does not describe your work or choose "?" if you cannot decide.

	YES	NO	?
Fascinating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Routine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Satisfying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gives sense of accomplishment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respected	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exciting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rewarding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Useful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Challenging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Simple	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Repetitive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dull	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uninteresting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can see results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uses my abilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. PAY

Think of the pay you get now. How well does each of the following words or phrases describe your present pay?

In the columns stipulated, choose "YES" if it describes your pay, choose "NO" if it does not describe your pay or choose "?" if you cannot decide.

	YES	NO	?
Income adequate for normal expenses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Barely live on income	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comfortable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Less than I deserve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Well paid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enough to live on	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Underpaid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. OPPORTUNITIES FOR PROMOTION

Think of the opportunities for promotion that you have now. How well does each of the following words or phrases describe these?

In the columns stipulated, choose "YES" if it describes your opportunities for promotion, choose "NO" if it does not describe your opportunities for promotion or choose "?" if you cannot decide.

9. SUPERVISION

Think of the kind of supervision that you get on your job. How well does each of the following words or phrases describe this?

In the columns stipulated, choose "YES" if it describes the supervision you get on the job, choose "NO" if it does not describe the supervision you get on the job or choose "?" if you cannot decide. *

Promotion on ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dead-end job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Good chance for promotion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Very limited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Infrequent promotions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regular promotions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fairly good chance for promotion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	YES	NO	?
Supportive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hard to please	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Impolite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Praises good work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tactful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Influential	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Up-to-date	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unkind	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has favourites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tells me where I stand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Annoying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stubborn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knows job well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intelligent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor planner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Around when needed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lazy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>